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ROYAL COMMISSION  
ON  
CANADA'S ECONOMIC PROSPECTS

HEARINGS

HELD AT

REGINA, SASKATCHEWAN

November 17, 1955

Volume 7







Thursday, November 17, 1955

REGINA, SASKATCHEWAN

The commission opened its Saskatchewan sittings in the Legislative buildings, Regina, on Thursday, November 17, 1955, at 10 a. m.

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Present:

Mr. W. L. Gordon, Chairman;

Mr. Omer Lussier;

Mr. A. E. Grauer;

Mr. Andrew Stewart;

Mr. Raymond Gushue.

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Appearances:

Hon. T. C. Douglas, Premier;

Mr. T. K. Shoyama, economist;

Hon. I. C. Nollett, Minister  
of Agriculture;

Mr. M. Brownstone, economist;

Hon. J. H. Brockelbank, Minister  
of Natural Resources and Minister  
of Mineral Resources;

Mr. David Cass-Beggs, general manager,  
Saskatchewan Power Corporation;

Mr. D. H. F. Black, director of  
industrial development;

Professor W. Baker, agricultural  
economist and chairman of  
Saskatchewan royal commission  
on agriculture and rural life;

Mr. Bert Sufrin, economist;

Hon. C. M. Fines, Provincial Treasurer;

Mr. A. J. Blakeney, counsel;

for the government of  
Saskatchewan





THE CHAIRMAN: Well, gentlemen, shall we come to order? Mr. Premier, we are delighted to be in Saskatchewan. We had a very excellent introduction last night by reading the brief which the province actually let us have a day or two previously, which we are looking forward very much to having presented formally today. We did get a great deal out of the opportunity of reading it ourselves ahead of time. We thank you very much for letting us have it a day or two in advance, because it will help us considerably, we think, during the course of these proceedings.

PREMIER DOUGLAS: Mr. Chief Commissioner and commissioners, my function this morning is to perform the very pleasant task of extending a welcome to the commission on Canada's economic prospects, and to assure you of our desire to co-operate in every way possible in supplying you with any information or data we have which will be of assistance to you in carrying out your heavy responsibilities, which have been given to you by the government of Canada.

I would therefore like on behalf of the people and the government of this province of Saskatchewan to extend to you the most hearty welcome. I cannot say a warm welcome, with the weather we have today, but I can assure you it is a most sincere and hearty welcome.

I would like to say that in Saskatchewan we are celebrating our fiftieth birthday this year, and this is a very suitable occasion for you to be coming to the province, when we are looking back over the past 50 years, taking some pride in the accomplish-





ments of the province in the past, but also looking forward over the years ahead.

As you know, this is primarily an agricultural province, and during the past 50 years we have developed from a pioneer economy into a very considerable agricultural area. In more recent years the development of our non-agricultural economy has assumed increasing importance, and the briefs which will be presented will deal with some of the problems arising out of the development of the non-agricultural section of our economy.

The non-agricultural section does present some economic problems, the main one being the need for social investment in terms of greater mapping exploration and development of our natural resources; and this will be dealt with in some detail.

It also presents problems in terms of social investment, both for the province and the municipalities, to keep pace with the new areas that are being opened up and the urbanization of certain sections of our population.

The problem of municipal financing is one to which we have been giving a good deal of thought, and one which I have no doubt the commission will be considering in some detail. After the federal-provincial conference which was held in October, one of the recommendations which were made by our government, to which the federal government and the other provinces have agreed to give some study, is the feasibility of reviving and revising the old Municipal Improvements Assistance Act,





by which the federal government at one time would give assistance to the municipalities for self-liquidating municipal projects. We think that is a basic requirement to which a good deal of consideration should be given.

We are extremely optimistic about the future of the non-agricultural segment of our economy. We are also optimistic about the long-term agricultural picture. We think the demand for food will be a continuing demand, with a growing world population; and we think our province and our farmers, given the proper leadership, can make a very worthwhile contribution to the production of food.

We are concerned about the short-term picture; and we are sure that as the result of many representations which have been made to the commission, this is something the commission will be studying very carefully.

Although our agricultural production has increased, the farmers of our province are caught in a cost-price squeeze. In recent years the prices they have been receiving have been going down and their costs have been going steadily up, and this is something which gives us a good deal of concern, this present surplus of products and the difficulty of marketing some of our primary products, particularly wheat. So the briefs we will be presenting will centre around these basic considerations.

I think you already have a list of the witnesses for the government, but I might just mention





them. The first, who will give the introduction and summary, will be Mr. T. K. Shoyama, secretary of the economic advisory and planning board. Chapter 2, on the potential growth of agricultural production, will be given by Hon. I. C. Nollett, provincial Minister of Agriculture. Chapter 3, on markets for agricultural output, will be given by Mr. Myer Brownstone, who is the research director of the royal commission on agriculture and rural life which is at present completing its report to the provincial government.

Chapter 4, on the outlook for research development, will be given by Hon. J. H. Brockelbank, Minister of Natural Resources and Minister of Mineral Resources, two departments.

Chapter 5, on energy supply and demand, will be given by Mr. David Cass-Beggs, general manager of the Saskatchewan Power Corporation.

Chapter 6, on the development of manufacturing industry, will be given by Mr. D. H. F. Black, who is the director of the industrial development phase of the provincial government.

Chapter 7, on population growth and distribution, will be presented by Professor W. B. Baker, who is head of the school of agriculture at the university and who for the past two and a half or three years has been chairman of the royal commission on agriculture and rural life, whose report I mentioned a few moments ago.

Chapter 8, on productivity and capital investment, will be presented by Mr. Bert Sufrin, who





is a research economist in the economic advisory and planning board. The final chapter on social capital requirements will be given by Hon. C. M. Fines, our Provincial Treasurer. Mr. Blakeney will act as counsel for the government of Saskatchewan, and will be very glad to introduce each of these witnesses.

In view of the fact that some pleasure has been expressed that so many of the Saskatchewan economists seem to be graduates of British Columbia, you will be glad to learn that Mr. Blakeney is a graduate of Dalhousie, so we get to the other end of Canada.

Once more may I extend a very sincere welcome and say how delighted we are to have you here and to assure you again of our utmost co-operation.

THE CHAIRMAN: Thank you very much.

MR. BLAKENEY: The first witness to be called by the government of Saskatchewan will outline the scope of the government's submission. He is Mr. T. K. Shoyama, secretary of the economic advisory and planning board.

THE CHAIRMAN: I think for the record we should mark this brief Exhibit 35.

MR. SHOYAMA: Mr. Chief Commissioner and gentlemen, unlike our brief my remarks this morning are going to be very short, particularly since the premier has in effect covered much of what I had thought I might say to begin with.

Our submission attempts, unfortunately in a very hurried manner, to put together some ideas





and some forecasts of what we think is likely to happen in Saskatchewan over the next 25 or 30 years. It has been prepared in co-operation with quite a number of the government departments, each of which has contributed separate sections. Our own board, the economic advisory and planning board, has had the task of attempting to co-ordinate the various sections, and in so doing of course we have necessarily become reasonably well versed with each of them.

We have attempted, as I said, to look forward two or three decades and make a deliberate attempt to cover the territory which was set forth in the terms of reference of the commission. In several portions, of course, there is a very serious lack of data to help us in that task, so that we are unable to vouch for the scientific validity of some of the material.

Just in that connection, while we were engaged in this task of trying to forecast, we looked into some of the learned journals, and I thought you might be rather interested in one very brief paragraph from an article on the technique of economic forecasting. This paragraph suggests a rather provocative idea:

"There are literally hundreds of thousands of persons engaged in economic forecasting of one kind or another. If all of them simply guessed, hundreds would be correct in their forecasts time and time again. The record itself does not separate the





careful, sophisticated forecaster who has used a scientific system from the guesser and charlatan."

Of course we have had enough experience in Saskatchewan to suggest that some times a touch of the charlatan can come closer to the truth than the scientific forecaster.

THE CHAIRMAN: We will remember that.

MR. SHOYAMA: Our introduction suggests, if I might quote one sentence --

"Given a framework of continuing stability and economic progress in Canada as a whole, the rationalization and more balanced growth of international trade, and an imaginative national policy of co-operative effort with the provinces in resource development and public investment, the government of Saskatchewan firmly believes that the next two and three decades will witness a period of rapidly accelerating expansion in the economy of Saskatchewan."

I might say that the government takes this view for two particular reasons, the first of which is simply the record of growth which has taken place since the end of world war II. This, of course, is a record of growth that has been common across the country.

In Saskatchewan we have attempted to assess in somewhat general terms the principal features,





among which is the fact that the net value of production has increased very substantially in the 10 years since the war. Not only has the net value as a whole increased, but there has been a very important and substantial expansion in the non-farm industries of the economy; and it is the growing and absolute relative importance of the non-farm industry that is today providing a broader and more diversified base for our economy.

This growth of our resource-based industries of course has been accompanied by an expansion in all the complementary and supplementary service industries which are necessary in this expansion. It has been accompanied also by a very substantial expansion in the level of personal income, and we have detailed that in our brief with some statistics.

At the same time there has been a very substantial increase in the rate of capital investment in the economy. This investment has been going on in all the resource-based industries, of course, and in the supplementary service industries necessary to maintain this kind of expansion.

Perhaps one of the most interesting manifestations of this general expansion has been the very great change in population trend in the province. The heavy outflow which caused a large decline between 1936 and 1946 was very substantially reduced in the five years after the war. At the same time a rapid upturn in the birth rate, together with declining morality, resulted in a remarkable





rise in the natural increase of the population. Since 1951 the intercensal estimates indicate that higher levels of income and expanding employment opportunities have made it possible for the province to retain a very large proportion of this high level of natural increase.

As I say, this is the first reason we are very optimistic about Saskatchewan, because we do believe that economic growth has attained a momentum which is likely to carry forward into the future.

But more than the simple fact of momentum is the fact that during the past decade there has been revealed a very substantial potential for further and continuing gains, first of all in the resource-based industries and in commodity production; and this potential is thought to be of very broad scope. Not only is it to be found in agriculture and the possible increase in agricultural production, but also in the non-farm industries, particularly minerals and other natural resource development. Both Mr. Nollett and Mr. Brockelbank will be dealing with these matters in more detail.

One of the problems, of course, which presents itself in the course of economic development is the growing need for energy, and we believe we are very fortunate here in Saskatchewan in that there is in fact a very large reservoir of energy. The provincial government's policy is to seek the integrated use of a series of possible sources of energy. So we foresee continued use of the lignite coal and petroleum fuels;





the greater development of steam-generated electricity, and perhaps later the greater development of hydro electric power as well.

All this basic expansion, we think, will lead to a very substantial growth in secondary industry and in manufacturing. The projection of potential growth in manufacturing industry suggests that by 1980 the volume of output could be more than double the current levels and reach a gross value of \$600 million at today's prices.

This kind of expansion, of course, has real implications in terms of future population growth. Our reasonably conservative estimate is that any series of three possible assumptions leads us to a population growth of the order of 1.7 per cent per annum, reaching a level of about 1 1/4 million by 1981, possibly 1,300,000. If the annual increase were to be maintained at the level of the past 10 years and all of it were to be held within the province, we could probably grow to 1 1/2 million people; but we do think there are some reasons why there will be a continuing moderate level of migration from the province.

This expansion, of course, is going to require a very substantial investment of capital and a very high level of capital formation, both in terms of industry and in terms of social facilities. All of this, of course, will be dealt with in detail by Mr. Fines and Mr. Sufrin. If we are going to retain our population increase we will have a job finding employment opportunities for at least 5,000 persons



per annum, with possibly an additional margin for a very much bigger projection as to the number of people who may possibly migrate out of agriculture into other industries after the next 20 to 30 years.

This leads us, therefore, to the brief summary of some of the problems which are discussed in greater detail and at some length in the brief itself. I would like to just read briefly from the text.

Saskatchewan this year is proud to celebrate only the fiftieth anniversary of its establishment as a province. In respects it is still undergoing a process of transformation from the initial patterns of recent agricultural settlement. Its economic structure and dimensions today are as fluid as its history is short. Understandably, predictions for its economic future range from remembered and recurring gloom to the boundless optimism of the "next year country."

In attempting to assess its prospects realistically, undoubtedly the most unpredictable hazard lies in the fact that a large part of the province's basic production is exposed to the effects of an extremely variable climate. Moreover, because of its geographic characteristics and sparse population, an even larger part of total output is dependent upon the vagaries of distant domestic and foreign markets, which can be reached only at high transport cost.

In terms of the requirements of an industrial economy, such basic sinews as power, water,





fuel and transport are only now being fully developed. The labour force, though extremely mobile and adaptable, is still relatively untrained in the skills of an industrial economy. Both local sources of investment capital and local enterprise experienced in industrial undertakings are limited. Much of the mineral and other resource potential is difficult of access and difficult to exploit. The greater part has been mapped and explored only in the most preliminary fashion, and a high and continuing level of public and private expenditure will be required for development. So, too, with much of the agricultural potential; that part consisting of unused lands is dependent upon long-term public investment as a means of bringing it into production.

All these are factors which complicate the process of growth and compound the difficulty of appraising the precise lines and the extent of future development. They indicate as well, therefore, the broad needs and problems to which public policy must be addressed if the growth prospect held out in this submission is to become a reality.

Our introduction suggests briefly some of the measures the provincial government has been taking in an effort to stimulate economic development. It concludes with a very brief statement which I might read.

It is clear that however promising the potential, or however determined the provincial programme, the actual achievement will be vitally affected by forces beyond provincial and national





boundaries and hence by the role the government of Canada is able to play. The expanding basic production of Saskatchewan must seek its chief markets in the heavily populated areas of the country, and particularly in foreign countries. National policies to assure high levels of employment and income at home, and improved access to broadened external markets are thus of first and fundamental importance. National transportation policy must similarly be focused upon minimizing the handicaps suffered by the prairie region because of its mid-continent location.

The costs of aiding resource utilization and investment in long-term development are recognized as heavy burdens. A vigorous and dynamic federal programme of co-operative effort with the provinces should replace what too often now appears to be a half hearted, grudging measure of assistance. Growth in the underdeveloped regions of the nation will obviously benefit not only those regions but the whole national economy, and the higher incomes produced will be quickly reflected in enlarged national revenues.

Finally, it must be stressed that the expanding requirement for social capital is already imposing heavy strain upon the credit and financial capacity of provincial and local governments. No one doubts that the construction of schools, hospitals, highways and community facilities is essential to economic growth today. There is evidence that local responsibilities in these areas of need are



now expanding at a much faster rate than the increase in obligations for capital development constitutionally assigned to the federal government. There has been no commensurate shift of financial resources, and these divergent long-run trends emphasize the urgent demand for a dynamic programme of federal aid in provincial-municipal capital financing.

In the current stage of economic growth in many provincial regions, the lack of such aid may very well prove to be a severe handicap to balanced economic progress throughout the whole Canadian nation.

This is the framework, Mr. Chief Commissioner and gentlemen, which we shall attempt to elaborate upon. I think each of these gentlemen is an expert in his own field, and with the help of the various officials they will be able to answer any questions which may be asked.

THE CHAIRMAN: Thank you very much. I think it was suggested that we ask our questions as the presentation proceeds, rather than ask the questions now?

MR. SHOYAMA: That is the idea, yes.

MR. BLAKENEY: To deal with the subject of agriculture, dealt with in chapters 2 and 3 of our brief, two witnesses will be called. To cover the section dealing with the potential growth of agricultural production, Hon. I. C. Nollelt, Minister of Agriculture, will be asked to speak. To deal with markets for agricultural output, Mr. Myer Brownstone, of the economic advisory and planning board, will be asked to speak.





I suggest that questions on the subject of agriculture be deferred until after these two speakers have had their say. I now introduce Hon. I. C. Nollett, provincial Minister of Agriculture.

MR. NOLLETT: Mr. Chief Commissioner and members of the commission, I first wish to say how much we welcome the opportunity of being able to present a brief to you in respect to the potential growth of agricultural production in Saskatchewan.

I wish first to acknowledge the work done by the members of the staff of the Department of Agriculture, and also the section on marketing done by Mr. Schwartz of the planning board. Unfortunately all the briefs that we had in preparation are not in your hands at the moment. The one dealing with the potential growth has been made available to you, as well as the one on marketing.

Therefore, Mr. Chairman, I wish to submit supplementary briefs dealing with land resources and present production, and public investment in agriculture; also a report of the royal commission on mechanization and farm costs, which I believe will be of great value to the commission.

THE CHAIRMAN: Thank you. Mr. Grauer suggests that we label these two supplementary submissions as Exhibit 35A and 35B, so we may keep track of them.

MR. NOLLETT: Very good.

Now, Mr. Chairman, of necessity my remarks must be brief. It is my understanding that





you have many witnesses to appear before you today; therefore it will not be possible for me to deal with statistical matters as such. I hope, therefore, to deal with agriculture in this province in a general manner, in an endeavour to give you perhaps a clearer overall picture of our agricultural situation here.

We should perhaps start by pointing out to you that the total area of Saskatchewan is approximately 161 million acres, of which only about 8 million acres is water. That leaves us with a balance of some 153 million acres of land.

That covers the area of Saskatchewan from the south to the extreme north. The part in which we are primarily interested is located in the southern half of the province, and I would refer to it as the agricultural area of the province, which contains approximately 63 million acres of land, of which approximately 40 million acres are under cultivation.

I should make this point, that this 40 million acres of cultivated land represents very nearly 40 per cent of the cultivated acreage of Canada. Our potential is great, but we have certain climatic hazards, and I think that is revealed in my statement of the small area of water in relation to the immense area of land in our province. So we have climatic factors which in the past have proven to be very disastrous to the economy of Saskatchewan.

I should refer to the early settlement pattern that took place in this province. In the



early agricultural development of the province, settlers came in and settled indiscriminately, particularly on the homestead basis, when it was considered that a quarter section of land was sufficient. Many settlers landed in areas of the province where the growing of grain and the cultivation of land was not practicable, because of climatic factors. We have had a very sad experience as the result of that, culminating, as you all know, in a series of dry years in the thirties, accompanied by an economic depression.

At that time thousands of farm families moved completely out of these problem areas, some moving to the north to be reestablished there.

Therefore, arising out of that experience, we have endeavoured to develop agricultural policies that would, first of all, bring the greatest stability to our agricultural economy; that is, to promote such agricultural practices, with the aid of modern science and all the rest of it, to overcome as far as possible the natural hazards, which of course is a matter of moisture deficiency. In conjunction with that our policy has been to endeavour, by encouraging better land use practices, to increase our agricultural production in this province.

We have attained a measure of success in that direction. I do not want to assume all the credit for the exceedingly good crops over the past few years, though my prayers have probably been answered more effectively than those of Right Hon. Mr. Howe. I am praying for good crops and better





crops, and at the present time he is praying for less production. I have won so far. I do hope, though, that it is not necessary to sell our surplus farm commodities to the devil. I would not like to see that, but unfortunately I do not have any direct connections in that direction.

THE CHAIRMAN: I would like to compliment you on your direct connections in the other direction.

MR. NOLLETT: That is a source of contention between myself and Mr. Howe, and I maintain that I have very good connections, though perhaps in another year I may not be so fortunate.

At any rate, to a large extent we have overcome many of the natural hazards, though we cannot take all the credit for the success of our extension policies and other activities carried on by the department, in the direction of obtaining agricultural stability and increased production. We have had modern mechanical aids and better farm machinery which, of course, costs even more. We have had the weed chemicals and insecticides to control the grasshoppers, wireworms and so on more effectively still. All of these have been put to good use in the province, where I believe farm people are now far more conscious of good land use than they were 10 years ago.

I would like to refer very briefly to the organizational setup that we have used to attain these objectives; and the increases that have resulted,





particularly in grain, are pretty well outlined in the briefs presented to you.

First of all we expanded the agricultural representative service, which is the general extension arm of the department. A few years ago there were some 16 or 18 agricultural representatives in the province, most of whom were stationed in the large centres. We now have 37 agricultural representative districts, including one in the far north of Saskatchewan, where good results are already being obtained. In addition we have increased the number of assistant agricultural representatives.

The chief function of the agricultural representative service is to put forward a programme in connection with good land practice and use. To assist the agricultural representatives, they work in close co-operation with local agricultural committees, and together they have made land use surveys which have been very beneficial. If possible I would very much like to file with the commission some of the land use surveys that were worked out and initiated by the local committees, because they are very revealing, and they have set the pace for better land use practice in the particular municipalities concerned. As a result, our farm people are more conscious now of what we term balanced agriculture; that is, a better balance as between grain production, livestock and forage production.

We have one handicap, however, with which I want to deal a little more extensively later on. That



is this factor of farm price. We have had price stability to a degree as far as grain is concerned. We have not had that same stability for other farm commodities such as livestock and dairy and poultry production.

Had we had that stability, it would have given wonderful support to our extension programme for better land use practices, with the end result of increasing the general production of each acre of land in Saskatchewan.

However, in the plant industries branch we have carried on intensive campaigns in the matter of forage crop production, with good results. There are thousands of acres more seeded to forage now in Saskatchewan than ever before in its history.

We have added to the plant industry branch, specialists in soil irrigation, horticulture and other specialized aspects associated with promoting a sound plant industry programme.

Then there is the animal industries branch, which has to do with livestock improvement and disease control. We have set up in this province what are known as veterinary service districts, in the hope of holding down the incidence of disease and loss in that direction, with a great deal of success. We have now established or organized in the province approximately 40 of these veterinary service districts, some 21 of which have practising veterinarians in them. We believe that by the control of Bang's disease and other animal diseases,





through bringing scientific aids to the farmer, we can increase our agricultural production in that direction.

However, the principal branches that have to do with our over-all programme are the lands branch and the conservation and development branch.

I shall deal first with the lands branch. In 1947 all of the agricultural lands, that is, pretty well all the lands which you see on this map that had been soil surveyed, were turned over to the administration of the Department of Agriculture, for the specific purpose of carrying out a sound land use programme for this province.

There are approximately 10 million acres of crown land in this area you are looking at, most of which is grazing land, amounting to around 6 million acres. Within that area of crown land, approximately 2 million acres have been placed in community pastures, the purpose being to assist farmers who have undersized or small units to obtain access to grazing facilities, and by this method increase the size and productivity of their farm units.

The balance of the land available for this disposition has been allocated on the basis of need; that is, where we can we add land to an undersized farm unit in order to make it a more workable economic unit. By this method we can also make it possible for this farmer to carry on the type of balanced agriculture I am talking about, and that has such a great bearing on increasing the agricultural





potential of our province.

The brief cites to you very specifically and in detail, with a good deal of statistical information, the expected increase that will come about as a result of the programmes initiated, and as the result of modern aids to agriculture.

There are other directions, too, in which we can look for other potential agricultural production, and that is in the unoccupied areas, the unsettled portion of the province.

Unfortunately Saskatchewan has definite limits to new land resources. The principal new land resource -- and it is referred to in the brief -- is an area of good land in the northeast of Saskatchewan consisting of some 750,000 acres of land suitable for cultivation. Then there are approximately another one million acres, or just over that, of crown land in the north, or on the northwest, that can be developed for livestock production by clearing and breaking and sowing to grass again.

So we do have considerable potential possibilities for increasing production in the new land areas of the north, limited as they may be at the present time. However, we look for the greatest increase in the general improvement of farm practices and by the use of modern methods, which of course means that the farmer must have an improved income in order to avail himself of the opportunity of using chemical fertilizers, weed chemicals, better machinery and that sort of thing.



I would like to say a few words about another possible development or two. That is, the reclamation of land by drainage and irrigation. Our irrigation potential in this province is approximately 700,000 acres. When you look at the map you will note that again we are deficient in water supply. We only have the two principal rivers running through Saskatchewan, being the North and South Saskatchewan rivers.

Our greatest possibility for irrigation is on the South Saskatchewan river; and this project, as you know, has been referred to as the South Saskatchewan project, which has been under study by a dominion royal commission. We made submissions to that commission, and we have made a reply to the report of that commission, because this project is of great importance to us in Saskatchewan, not only speaking agriculturally but in a general economic sense, from the point of view of diversifying our economy and all the rest of it. It is important to agriculture, because it will mean a green spot in the centre of the province, which will have a stabilizing effect on the balance of the economy.

When I say this I do so knowing that the dominion government has spent in this province for direct relief in past years some \$186 million, and in addition has been paying, as you know, prairie farm assistance payments in the crop failure areas.

Agriculturally that green spot in the centre of our province would be of immense benefit;





but in addition there are approximately 200,000 acres that can be developed in smaller projects; some 58,000 acres which are presently developed, and others in the process of development.

From the point of view of public investment and such developments as irrigation, I would like to just make this point, which also holds true of any increased production potential. I assume your commission is concerned with employment for future generations, and I know the growth of population is a factor, together with the potential increase in production, and I can only assume that this is because we are thinking about jobs and employment for the future.

In the case of irrigation, unfortunately there is a restrictive point of view. Many people still have the old Salt Lake City, Utah, Mormon concept that irrigation will only help those who actually irrigate the land. In this modern age of irrigation and transportation, that is not the case. The benefits of irrigation and water development extend throughout the whole nation. The fruits produced in Alberta go all over Canada. The sugar produced there has been of great help to the government, particularly during the war years.

So if irrigation is something that benefits everyone, similarly reclamation by drainage, or dry land reclamation, or increasing the potential of our agricultural production by better dry land farm practices, helps the whole nation. It provides





employment; and it is by this means, by means of public investment in developing our resources and the best use of our resources, getting the optimum production, that we will find a solution to the problem of providing work for the increased population that is certain to come about in the future.

Next I would like to refer briefly to another aspect that is very much to the fore at the moment. I have already mentioned that farm income is a very necessary part of a balanced farm programme. I am hopeful that as a result of the submission made to the commission, the government of Canada will develop a comprehensive soil and water conservation programme for Canada. It is long overdue.

Many of the projects to which I have just briefly referred, such as the South Saskatchewan and drainage reclamation, involve tremendous expenditures of money. For example, last year, last spring, we had approximately 4 million acres of land under water. We have done our best to overcome some of these handicaps through the conservation and development branch, an entirely new branch which was set up in 1949. My entire department had an estimate of \$146,000 in 1946. Last year the regular vote was some \$5 million, to which was added \$1 million for emergency drainage relief this year, to take care of some of the water on this 4 million acres of land which was flooded last spring.



That is an immense undertaking, and these projects like the South Saskatchewan are beyond the financial resources of a province such as ours. I look with envy, sir, across the line to the United States. I look with great envy at Fort Peck, which was built many years ago and the benefits of which have been enjoyed for many years by the farmers in that particular area to the south of us. I look with greater envy to the development of the Fort Garrison dam within the past few years. I had the privilege of being down there at the time President Eisenhower was formally closing that dam. I attended the ceremony during which they closed the last block in the centre of that great project.

In that country they have a comprehensive soil and water conservation programme that recognizes the fact that some states of the union do not have the financial resources to develop their great natural resources, in which case the national government steps in and does so. President Eisenhower stressed that viewpoint and that principle at the time the Fort Garrison dam was being closed.

There the national government carries the entire burden, not only for irrigation but for power installations, and in addition to that it makes money available at a low rate of interest for the distribution of that power, which is wholesaled to the power co-operatives at a very reasonable rate.

Those are the kind of policies which





I think we need for this great country of Canada. If we do those things and make investments in that direction, we need not fear unemployment. We can be sure that our nation will progress, that the matter of progress will become a constant thing with us.

There is another factor which is important, too, and that is maintaining farm income, as I have already mentioned. You can discourage production; you can defeat the best purposes and intentions of the very best extension programmes and land use expenditures carried out by a provincial government if marketing policy is not such as to encourage the type of production which is desirable in connection with a land use programme. So I also believe that a comprehensive national marketing policy for Canada is long overdue, a policy that will be directed toward maintaining farm income at parity levels.

Many people tell me that I am just a little bit cockeyed when I talk about parity prices but, sir, I cannot see how we can afford not to maintain farm prices, even if it is necessary to subsidize agriculture; because for altogether too long our agricultural industry has been handicapped by having to buy all the goods and services required by it within a protected domestic market, and then being exposed to an unprotected export market which in recent years has declined very considerably. So we need a marketing policy, and a further





requirement is that an export agency be set up to find and maintain markets for the tremendous potential production of which this country is capable.

By way of illustration I wish to point out that in the war years, when we were planning production and when price relationships to agriculture were comparative, our hog production in this province in 1943 stood at 1,754,000. It went down to just about 400,000 and stands now, I think, at around 600,000, which again indicates that if comparative prices are available and maintained, a tremendous encouragement will be given to production.

As to cattle, in 1945 we had about 2 million cattle in Saskatchewan. That has gone down to about 1,300,000. As for sheep, we had half a million sheep in Saskatchewan during the war years, and now we have perhaps 150,000 left.

So you can see that the potential for production is there, and I think the members of my staff have been very conservative in estimating the increased production possibilities for the future. The price is important, and proper price relationships are very important in that regard.

At the moment we are very conscious of markets and prices in this province, and we are talking a great deal about the cost-price squeeze. For the benefit of the commission I would like to point out, for example, that instead of the price situation improving, it is actually worsening. In the period 1951-54 farm prices went



down 28 points, and in that same period the cost of farm production had gone up by over 33 points. I should like to point out, too, that comparing 1952 to 1953, retail sales went down by 65 per cent, and farm cash receipts less cash operating expenses went down by 55 per cent.

So in an economic environment of that kind it is almost futile to talk about increased production. These basic economic questions have a greater bearing on future employment and the potential growth of agricultural production than any other factor I know of.

We must look at this farm situation realistically. It is entirely different to what it used to be. I should mention that the horses are gone from the prairies. Our cattle population has also been going down, despite the fact that our horses have practically vanished. They have not been replaced in the livestock economy. I can go back to 1921, at which time I could find more cattle in this province of ours than we can find at the present time.

So the potential is there, but there must be some encouragement and incentive given to the farmer to produce. Believe me, we can do it in this province, and I say that with the knowledge of a world hungry and starving in the background. Our people are very conscious of that, because we have been so dependent on outside markets for agricultural production. When we lost our bacon





market in Great Britain, and our market for poultry and dairy products, it affected us very adversely, not only in the pocket but also in the mind.

We feel that there is a solution to that problem. That is the reason for our suggestion that we have a comprehensive marketing policy for Canada, which is long overdue, and also an export agency that will promote and maintain markets abroad.

I would like to point out that the industrial development we enjoy today in Canada grew as a result of the export of agricultural commodities in the early colonial days, and I maintain that it is just as important to export agricultural commodities, and perhaps more so, as any other products. It is also true that the agricultural industry today can make just as great a contribution to the general economy by providing employment, by providing export markets, as in the early colonial days.

There is one more point to which I would like to refer, and I do not know whether it was contained in any of the briefs, although mention was made of it. That is the matter of long-term, low-interest credit to farm people.

I think this is very important. Again the country to the south of us is in advance of us. The purpose of such loans, of course, would be for the reestablishment of young people who wished to engage in agriculture. This business of taking up farming today involves a great deal more capital investment than it did just a few years ago. In addition to that,



it is necessary in order to permit the farmer to improve his production techniques, to buy better machinery, to operate a more sizeable unit, and in general to operate more efficiently. We always get a lot of free advice from businessmen suggesting that the farmer should become more efficient in his production methods; that it is in this direction that we can overcome the problems associated with the cost-price squeeze. There are definite limits to the kind of efficiency that can be brought about in any industry, particularly one that is exposed to the elements; and to my mind our farm people are doing quite an efficient job as it is. But the farmer can improve his productive capabilities by having the modern means to do so, and low-rate, long-term loans would be of great assistance to our farm people in that general direction.

Now, Mr. Chairman, there were other things I would like to have spoken about in detail, but time certainly will not permit. Again I want to thank you for having given me this opportunity of making a presentation in behalf of the industry of agriculture in this province, pointing out to you its potential and what it means to the national economy as well as what it can mean in the years ahead. I hope and trust that as the result of your own deliberations and recommendations, policies will be instituted that will have desirable effects, perhaps partly as a result of the very brief outline and suggestions I have made to you. Thank you





very much.

THE CHAIRMAN: Thank you very much.

MR. BLAKENEY: Mr. Chairman, the next witness will be Mr. Myer Brownstone, research director of the royal commission on agriculture and rural life.

MR. BROWNSTONE: Mr. Chief Commissioner, I have no desire to inflict my rather limited powers of oratory upon you and your colleagues, so with your indulgence I shall read a statement summarizing the portion of the brief dealing with the outlook for agricultural markets.

This chapter was prepared as a basic background to any projection of the use of agricultural resources. There should be little question that production is meaningless, certainly in economic terms, without effective demand for output. This is true for our whole range of output whether it be basic, physical necessities such as food and shelter, or basic cultural and intellectual necessities such as painting, music or, indeed, poetry.

It is appropriate therefore to examine conditions of demand as they affect agriculture. At the same time although demand is the basic requirement for production the requirements of producers for income must receive careful consideration. That is, given a strong latent demand will this result in prices which will bring forth adequate production -- or alternatively given adequate production will the rewards to producers year in and year out provide adequate producer incomes? Although these aspects



are not within the scope of this brief because the question of producer income requires much broader treatment, some comment is made at the end of the submission.

Turning to the main content, the discussion is developed in three major aspects and at two levels. The aspects considered and projected are population, income levels and distribution and marketing. These are considered in terms of foreign and domestic conditions.

As you know the export market is of particular relevance to Saskatchewan because of the predominance of wheat production. As our domestic population and income grow the relative importance of the export market may decline somewhat, but for many years to come exports will play a crucial role in the Saskatchewan economy. But the importance of the export industry is not restricted to the Saskatchewan economy, it is fundamental to the national economy as well. Wheat exports typically constitute from 15 to 25 per cent of total exports. Without attempting to define a relationship in detail and without undue exaggeration I would suggest that the business cycle as well as secular growth in Canada are largely related to the fluctuations in foreign trade. For this reason the condition of demand and income conditions in the export industries must be regarded seriously.

With this background the submission explores the demand for food in the export market. In terms





of population it states the well known expectation of rising world population. This taken by itself provides a broad basis for optimism in terms of world food requirements. It is fortified by the knowledge that much of the existing population has not attained adequate diets. F. A. O. estimates that world food production should be doubled in the next 30 years to improve the general diet and to take care of population growth.

A second obvious factor in foreign demand is the extent to which other food producing countries can increase their output. With regard to Canada's traditional wheat market -- the United Kingdom, north-western and southern Europe -- it is unlikely that increased output will seriously reduce import needs. In terms of competition from other output, then, a continuing strong demand for the bulk of Saskatchewan's wheat exports can be projected. As for the residual market largely in underdeveloped countries, it is clear that significant possibilities for increased output exist by means of technological improvement and development of unimproved land. However, strong demand for imports will continue throughout the development period and in all likelihood self-sufficiency may never be attained.

The next step in consideration of foreign demand leads to a discussion of effective demand which relates to the ability of importers and exporters to buy and sell food at a point where income needs of exporters and consumption needs of importers are satisfied. We are all familiar with the problems



involved. One which is very prominent today is the exchange problem. In this submission it is suggested that the only basic solution to exchange difficulties is to expand trade with customers who do not have dollars or at least to undertake to trade at some date in the future. This decision must be reached, of course, in terms of national and international welfare.

The exchange problem is more significant in our traditional European markets. In the new potential markets the basic problem is low income, which in turn is related to a low rate of economic development. These "underdeveloped" areas are characterized by very low per capita incomes, high nutritional deficiencies and non-industrial economies. In the drive for industrialization the use of funds for purchase of imported foods is given low priority. Thus the possibility for Canada gaining good markets is controlled by the rate of capital acquisition and adequate industrialization. Therefore apart from gifts of food to alleviate starvation, the main emphasis of Canadian and American policy must be in providing loans and gifts of capital goods and technical assistance to underdeveloped countries on a greatly increased scale.

The third and most widely discussed barrier to effective demand is the international marketing structure and its operation. Since organization for international marketing involves relationships almost as complex and sensitive as





international political organization it is not surprising to find parallel types of reversals. There is incomplete membership, there are many escape clauses, there is little effective policing and while there are no vetoes, there are "walk-outs". In the face of these weaknesses and pressed by domestic producer requirements, exchange problems, surpluses and urgent food shortages, many countries have adopted programmes which weaken international approaches. But sufficient support is apparent and sufficient progress has been made to ensure within the next 25 years development of a comprehensive world food marketing agency which will contain effective provision for stockpiling, adequate pricing arrangements, solution to exchange problems and many useful features of the present international wheat agreement.

Domestic demand, as foreign demand, can be treated in terms of population, income and marketing. But unlike the international economy Canada's economy, to the extent that is an independent economy, can be regulated and predicted with much greater certainty.

Population has enjoyed a marked upsurge in the postwar decade. Generally accepted revised estimates now anticipate a Canadian population of 25 million by 1980. If this estimate is correct then a substantial increase in livestock and poultry products and milk and dairy products will be required, but wheat will remain a significant exportable commodity.



Anticipated changes in income and its distribution will have important effects on food expenditure and the composition of diets. A well established principle requires enunciation at this point. This relates to the proportion of income spent on food and the composition of diets as income changes. A rise in income will, in general, result in a less than proportionate rise in expenditure for food. Furthermore, as income rises diets change from emphasis on staples to emphasis on higher protein and more protective foods or from grains to vegetables and meats. These effects are smaller if one starts with a very low income.

By combining a population estimate, a disposable income estimate and assuming no change in income distribution or in the relationship of food to non-food prices it is estimated that by 1980 expenditures on food will rise from \$3.7 billion in 1955 to \$7 billion in 1980. This involves, in addition, a shift toward greater consumption of animal products, vegetables and fruits.

It is, however, essential to underline the need for avoiding major recessions or the estimate will not be reached. There is little question that recessions can be avoided. If the terms of trade of agriculture weaken, food expenditures may be lower than estimated. If income redistribution in favour of lower income groups takes place, then food expenditures will be





somewhat higher than estimated.

One technique for redistributing income with specific attention to food problems, is a food distribution plan. This is designed to assist low income groups to reach an adequate nutritional level. Such groups include pensioners, social aid families and individuals, unemployed, unemployables, and low income families. Since the problem is chronic, although the size of the group varies, a permanent programme could be instituted to raise the level of food consumption in Canada. It is suggested the food distribution programme should follow, in general, the programme known as the Aiken food allotment plan in the United States. In addition, Canada should institute a programme of subsidized school lunches or as a minimum, distribution of milk in our schools.

The final aspect of domestic demand conditions discussed in the submission is the question of national marketing. Even given conditions of relatively high and rising income and rising population, an inadequate marketing bridge between producer and consumer may detract from optimum distribution of food. This condition obtains when production is affected by uncontrollable climatic disturbances and the producer is forced to accept a low price or the consumer is forced to pay a high price. It obtains when producers who can control production to some extent have no accurate price guide to consumer wishes. It obtains where producers are paid not on the basis of grade which consumers pay for but on the basis of the



grades enforced by marketing institutions. Finally, it obtains where the marketing institution is able to extract a maximum price from the consumer and to pay a minimum price to producers.

All of these conditions still characterize the marketing structure of most agricultural commodities. At the same time, many marketing reforms have been instituted in the past 50 years. In brief, reforms have tended in the direction of public intervention, either by producer organizations, both voluntary and compulsory, or by government agencies, provincial and federal. At present, and with the exception of the Canadian wheat board, marketing boards are restricted to single provinces and regions and to a restricted number of commodities.

Future developments in national marketing will undoubtedly feature expanded public intervention. For 1980 it is safe to predict a national livestock marketing scheme, either in the form of an inter-provincial agency or a federal marketing board. Under this condition, ~~a national~~ storage programme, forward prices for farmers, improved grading and grade standards will be established.

Having surveyed international and domestic demand problems and policies a final word on producer income is required. The attainment of progress discussed will mean much progress toward raising and stabilizing agricultural incomes. If one adds in complementary programmes in the productivity area then we can look forward to a greater degree of equality of incomes of farmers and





workers in the economy. But it is not suggested that all goals will be reached immediately. Indeed some programmes will require decades of concerted effort. In the interim it is quite likely that producers will continue to suffer traditional income disabilities. These low and often fluctuating incomes affect not only the individual farmers but also the buoyancy and stability of the national economy.

In order to assure producers of reasonable income and to maintain the general economy, a built-in programme of agricultural income supports is required as a permanent aspect of agricultural policy. The most practical expression of this type of programme would be price supports geared to a reasonably high level of prices but operating only during periods of recession. Such programmes should apply to all agricultural producers, but should discriminate between high and low-income farmers and should not burden consumers directly through market prices.

THE CHAIRMAN: Thank you very much.

MR. STEWART: I should like to ask a few questions, and I shall direct them to the minister who perhaps will pass them on.

I think it would be very helpful to the commissioners if someone could briefly describe the basic physical conditions as they differ in different parts of the agricultural portion of the province, and indicate how these physical differences are reflected in different types of farming, including



the size of the farm, land use, and so on; just in a few minutes.

MR. NOLLETT: I will ask my deputy minister, Mr. Horner, to answer that, because he can do it much more briefly than I can.

MR. HORNER: Mr. Commissioner and gentlemen, I am certainly very pleased indeed to do this. It is a factor which I think is covered to some extent in part 1 of this supplementary brief.

Speaking of our land resources, we brought over a soils map this morning; and I might say that through the co-operative effort of the dominion Department of Agriculture, our own department and the University of Saskatchewan in developing a Saskatchewan soil survey, we have completed a pretty detailed inventory of our soil resources.

The province has been divided soil and climate-wise into roughly five zones. The brown soil zone down in the southwest area is characterized by open prairies, almost a complete absence of trees except in some local areas, and by a shortage of water resulting in periodic, frequent and severe droughts.

In crop district No. 3, which lies roughly in that part of the province west of Moose Jaw, in the area on the map which I am indicating, our yields of wheat have varied from .2 bushels per acre in 1937 on the average to 28 bushels per acre; and again in 1949 I believe this crop district





No. 3 had an average yield of something in the order of 4 bushels to the acre.

I might say that climate-wise this area has a total precipitation not too different from that of the rest of the province, except for local areas. The rainfall runs around 15 inches per year, while up at The Pas I think it is 16.5 inches, and further on it is very close to the same precipitation. But what makes the difference in climate in this area is essentially the temperatures.

The next soil zone is the dark brown soil zone, which in many respects is very similar to the brown zone, but it is characterized by a deeper soil profile, more organic matter, somewhat taller native grasses, and generally a little better climatic condition, reflected in a little higher average production. Of course it is in the dark brown soil zone that the Regina plain is found. Similarly we have the heavy clay of the Rosetown area, which we commonly refer to as being the best wheat growing areas in the world.

Moving northeast, then, we move into what we call the black soil zone area. It lies in the southeast corner of the province and runs up through to Lloydminster. The topography of this area is characterized by bluffs, a lot of poplar bluffs and a little more rolling country, perhaps. It has much better moisture conditions, again not so much because of higher rainfall but because of lower temperatures and less wind. The soil profile of course is much deeper, a deep black profile, and our yields



in this area are much more consistent than they are in the southwest. We find in this area smaller farms, more livestock production, more intensive livestock production.

Moving again northeast we come to what we call the transitional soil; that is, soil that has been partly degraded through removal of forest cover. Some of our most fertile and most productive land lies in these areas which lie between the black soil zone and what we call our grey wooded soil zone, which is land which has been leached out severely; with no tree cover, and when you plough it, it is dry; it looks completely white on top. That is not as productive as the soil in the transitional zone or the black soil zone, and it requires special practices.

I would like to mention briefly some other differences that arise in terms of economy. In the dark brown soil area and in the brown soil area, for example, the non-arable lands are covered with grass and are there ready for pasture, for ranching or other similar use with no capital investment, except to put a fence around them, and to develop adequate water holes and storage, of which a great deal has been done through P. F. R. A.

However, in this other area of the province which I am now indicating, non-arable lands are generally covered by heavy brush, or at least poplar trees and so on, which involves a considerable cost in removing, varying from \$10 to \$25 or \$30 per acre. So a farmer living in this area who has a





quarter section farm, of which perhaps 40 acres is arable, is in a position where the remainder is of very little use to him unless he expends a considerable amount of capital investment.

Another factor I should point out is that during the thirties the original settlement scheme or the original settlement plan in this area was very substantially changed. Our farms grew larger in this area, due to economic pressures and of course also due to some working policies of both the provincial government and the federal government under P. F. R. A. I did put in this brief some comparative figures of farm sizes as between the different areas. I am not sure that I can find them conveniently here, but if I can I would like to refer to them.

Just speaking from memory, I think roughly according to the census figures which we quote in this report, in the brown soil zone and in these other two zones, something like 8 per cent of the farms were quarter section size, and less than 20 per cent, or something in the order of 20 per cent, were half section size. In contrast, when we go over into this other area, and generally speaking through the north, we find that two-thirds of the farms in those areas are less than half section in size, with roughly one-third or one-quarter in half section farms.

That means, we think, that in those areas with mechanization; with a somewhat new concept of a standard of living in these days, particularly



in some areas where they suffer flooding losses, severe frosts and so on, or where they have suffered them in the last few years, those districts are actually today more depressed areas than the southwest, which used to be so considered and in fact was so 15 or 20 years ago.

I think I shall not go on at greater length, unless there is some additional information you would like to obtain.

THE CHAIRMAN: I think before we proceed with the questioning we might have a recess for 5 or 10 minutes.

---Recess.

---After recess.

THE CHAIRMAN: Well, gentlemen, may we come to order?

MR. STEWART: We are very grateful to you for that general description, which will help us a great deal. I wonder, in relation to the brown soil belt, if you could say something to us about the reorganization that has gone on in there?

MR. HORNER: Yes, I can say just a few words in a very general sort of way.

I would point out that the brown soil zone area was originally settled, as I think my minister pointed out, in quarter section homesteads. I do not have with me the exact figures as to the size of farms according to the census, but the reorganization that was imposed by experiences that started, I suppose, in 1918, 1919 and so on actually





forced out a lot of people and their farms or their holdings were taken over by others. So today this area certainly contains the larger farms in the province. In addition, of course, it contains a substantial number of ranches. That is our ranching area, although there are ranches extending up the side of the province as well.

We think that reorganization has gone a good way toward putting farmers in that area in a better position to meet their vicissitudes and problems, particularly drought, which is their major crop hazard.

In addition to the reorganization that was imposed upon the farmers just by economic conditions during the thirties, when of course a great many of them simply packed up their wagons and moved north, leaving their farms, there were also two programmes instituted about 1935 and 1936 which were complementary to each other. The first was the inauguration of the P. F. R. A., and what at that time I think was complementary legislation passed by the province, called the Land Utilization Act, which gave the province -- actually the Land Utilization Act of the Saskatchewan legislature, I should say -- which gave the province very wide and sweeping powers in terms of declaring land to be designated as unsuitable for farming or unfit for farming. It also gave the lands branch, which was then in the Department of Natural Resources, or the land utilization board, which has been at various times in natural resources and agriculture and is now in agriculture, authority to make exchanges and purchases of land; and through the various procedures



in consolidating ownership of lands that were abandoned, or that should be abandoned, and that ought to be abandoned, these were put into community pastures.

I do have a map here which illustrates the progress that has been made in that particular direction. The red marks on the map are P. F. R. A. pastures made up of land that was obtained by the land utilization board and transferred to the dominion; some through ~~transfer~~, some through transfer under lease, for pasture purposes.

The province also operates a pasture programme under which generally speaking areas that did not fit into the P. F. R. A. programme, that is areas that did not have to be regrassed and so on, and some areas that were too small to be considered good economic pastures for the senior government to operate, have been established by the province; and further co-operative pastures on land secured by lease by the province have been established.

I might say that in Saskatchewan there are roughly 1 1/2 million acres in P. F. R. A. pastures; something like 280,000 acres in provincial pastures, and about 320,000 acres in co-operative pastures. A great deal of the land, of course, was land that had been farmed and taken out of production.

MR. NOLLETT: You should mention where the P. F. R. A. line operates.

MR. HORNER: Yes, I can make a note that the P. F. R. A. boundary starts, I think, at the North Saskatchewan river and drops south in





something of this direction, as I indicate on the map. We have a number of small maps which delineate the P. F. R. A. boundary in Saskatchewan, if you would like to have them.

MR. NOLLETT: The services of P. F. R. A. are not available north of that boundary. They assumed some responsibility south of it because of that earlier settlement policy, when settlement was under the dominion.

MR. STEWART: I suppose you would describe the dark brown soil belt as your principal wheat growing region?

MR. HORNER: There are some excellent wheat growing areas in the brown soil region. The brown, generally speaking shown in pink on the map, which is often designated as heavy clay, had heavy yields not very different from Rosetown or Regina, but that is the exception.

MR. STEWART: What would you briefly describe as a representative wheat farm, say on the Regina plain, in terms of size, land use, capitalization, and so on?

MR. HORNER: Well, I will try to outline it briefly. Just what the average size would be, I would have to look up the figures to be sure, but a typical farm might be a section, 640 acres, or in some cases perhaps a section and a quarter.

In terms of capitalization, of course you can set whatever value you wish on the land.



At current prices it is approximately \$65 to \$70 to \$75 an acre, which would give you a capitalization in land of something of the order of \$40,000; something of that sort. In terms of buildings, if we say it is a farm with no livestock -- and of course there are a good many livestock kept on the Regina plain too, but most of the farms I think do not have any -- in terms of buildings such as the house, granaries, machine sheds and so on, I think we have looked at some capitalizations recently that would indicate around \$10,000 for the buildings, and that is for an average sort of home and so on.

In terms of machinery the capitalization would be in the order of \$15,000 to \$20,000, I would say, to operate a section farm, and that is at new and retail prices.

One of our problems now, of course, is that a farmer on the Regina plain has that proportion of capital in machinery as against capital in land. If you moved that to other types of land that today are selling for \$25 or \$30 an acre, you find you need practically the same capitalization in buildings and machinery, and the capitalization in machinery may exceed the capitalization in land.

MR. STEWART: How would you describe a farm in, say, the Kamsack district?

MR. HORNER: I should have said, with regard to the Regina plain farm, that of the 640 acres, practically all is arable and cultivated land.

In the Kamsack district you might take





as an average a half section farm, with livestock, I suppose 12 or 13 head of cows, sometimes all cattle, 3 or 4 sows. It may have an arable acreage, depending on the particular soil, a great deal less than the 320 acres comprising the farm, perhaps going as low as 250 acres.

That farmer has a different sort of problem, of course; weeds, wild oats and that sort of thing, which are a little more troublesome. His capitalization in buildings should be a little bit higher because of his requirements for livestock. I would say often in fact they are not. His capitalization in machinery might run more to the order of \$10,000 or \$12,000, rather than the \$15,000 and upward I suggested in the other case. He would probably use a little longer rotation in his farming. He will use a little greater variety of grain crops. Certainly in the Kamsack district we do grow not only wheat but a good deal of barley and a good deal of oats, whereas on the Regina plain very likely it is wheat almost entirely, with minor quantities of the coarse grains.

I think that is roughly the picture.

MR. STEWART: Just as an indication of the difference in the levels of productivity and the variability, how would wheat yields differ as between the brown, the dark brown and your transitional areas? What sort of fluctuations would you expect?

MR. HORNER: I had occasion to look at some figures just the other day. In rural municipality No. 129, which is in this area I am indicating and is



almost but not quite all in the Regina heavy plain, their average yield of wheat over 37 years has been 16 1/2 bushels per acre. If you go up to the Melfort country, this municipality I am indicating, which is just west of Melfort -- I have forgotten the number -- had an average yield of wheat of 23 1/2 bushels per acre, which is a difference of about 6 or 7 bushels. Then near Nipawin, where we find some of our highest producing soils but which also contains a good many soils that are not considered so desirable, their average yield of wheat was just about 22 bushels per acre, about 6 bushels more than that of the Regina plain. Good soil in the Kamsack area would yield about the same as Melfort and Nipawin.

MR. STEWART: And with the higher yield you get a stability of yield?

MR. HORNER: That is certainly correct. I think there is a figure somewhere in our brief pointing that out.

MR. STEWART: We can dig that out.

MR. HORNER: It points out simply that in 1937, say, when wheat yields in municipality No. 129 were nothing, that the average yields in this part of the province were of the order of 10 bushels per acre. In 1949, when yields down here in the brown soil zone were very low, 4 bushels to the acre and some less than that, wheat yields in the northeast area were running 26 to 27 bushels per acre.

MR. STEWART: I had a few questions





I wanted to ask on the estimates of expansion and production under irrigation projects and in the newer areas that might be opened up. We are very grateful for the estimates that were made of the potential increases in production by better techniques, by irrigation and by expansion into new areas.

I do not want to take much time on this, and I know the reports on the South Saskatchewan project will be made available to us; but I wonder if somebody would point out to us on the map where the South Saskatchewan project would be.

MR. HORNER: We have a map here that outlines in diagrammatic form the South Saskatchewan project. Saskatoon is where I am indicating. If you transpose that on to the soils map, the South Saskatchewan river's course is almost directly east through the province to Elbow, and north from there to Saskatoon. The bulk of the irrigable land lies in this area, the area south of Saskatoon.

MR. NOLLETT: We can leave this map with you, showing all the drainage and irrigation projects in the province.

THE CHAIRMAN: Thank you very much.

MR. STEWART: I am looking at page 37. If there is any problem in connection with these figures we can follow it up later, but what I am really trying to get is a comparison of the increased productivity of the irrigated land as compared with the newer areas that might be opened up, and on page 37 we have estimates of the potential added production from the



irrigation project.

The figure that concerns me is the figure on beef, and if somebody is in a position to just clarify the point for me I would appreciate it. Otherwise we can follow it up later. If my arithmetic is correct, that 81 million pounds of beef there, using the figure of 900 pounds per cattle beast which you use on page 43, represents about 90,000 head of cattle, which would be marketed annually in this area. Is that correct?

MR. HORNER: That is correct, I think.

MR. STEWART: Could you tell me approximately how many farm units are in mind in connection with this area?

MR. HORNER: I think it is 2,000, or 2,400.

MR. STEWART: That is 2,000 farm units in an area of 500,000 irrigable acres?

MR. HORNER: No, I am wrong on that. That is the additional farms.

MR. STEWART: Let us take 2,000, then. You would be selling 45 head of cattle off each farm unit per year. Is this to be a feeding proposition, with feeders bought and fed in this area and then shipped off?

MR. NOLLETT: I would ask to have Mr. McKenzie deal with that question if he would. I think he dealt with this section.

MR. MCKENZIE: That was based on 21 head being sold each fall, raised on the farm and being sold off the farm as yearlings.





MR. STEWART: So you would carry that number of stock plus the breeding stock and others back of it?

MR. McKENZIE: That is right.

MR. STEWART: The next question is in relation to price. As I work this out, the annual contribution is of the order of \$270 per head. Is that right? The reason I am asking is that obviously this figure of \$24 million is the main element in the production, and it looks to me as though it may be a little bit inflated.

MR. HORNER: I might just say that while I do not think I can answer your question in detail, I would point out that this table of annual contributions is in terms of the national income, and that the price estimate is based on a retail price. I think in the case of beef roughly two-thirds of the price is farm price, and one-third goes on afterward.

MR. STEWART: Yes; I notice on page 44 that you seem to be using the retail price here.

MR. HORNER: That is the intention in this particular table on page 37.

MR. STEWART: What I am really trying to get at is income per farm, and I find a little difficulty; but I will talk about it later on.

MR. HORNER: I might say, too, that this table is taken with simply a transposition of prices from the brief that was presented by the Saskatchewan government to the royal commission on the South Saskatchewan river project, and I believe the various



calculations were explained in detail at that time.

MR. STEWART: If I might I would like to move on to the section dealing with marketing.

Mr. Brownstone referred, among other things, to the problem of exchange, and there is a reference to this matter at the bottom of page 57.

I think we all appreciate the complexities of this problem which are referred to here, but I wonder if somebody would indicate in some more detail what is in mind in the statement:

"If the problem of disposal of exports is approached as a problem in exchange of goods, it may well give cause to consider the feasibility of reorienting Canadian purchases from abroad."

What does the statement "consider the feasibility of reorienting Canadian purchases from abroad" mean? Specifically, what sort of things have you in mind?

MR. BROWNSTONE: If we accept the first part of the statement, that this is a problem of the exchange of goods, then it is a matter of our failure to purchase sufficient goods from our customer countries, and the solution is to purchase goods from those countries.

THE CHAIRMAN: Does that mean, to narrow it down a bit, purchasing more from the United Kingdom and less from the United States?

MR. BROWNSTONE: That is what it means,





unless a multilateral arrangement can be set up. Essentially it rests on the ability of Canadians to buy goods in these countries, either through a system of trading agreements or through some international agreement, or through delayed purchases with the accumulation of currencies which are not now convertible.

MR. GRAUER: That would presumably include the underdeveloped countries?

MR. BROWNSTONE: Yes.

MR. GRAUER: Because I believe they are held up as possible markets?

MR. BROWNSTONE: Yes; but we argue there that the main problem is one of low incomes in those areas. I think our exchange problems are most acute in the traditional markets, not the undeveloped markets.

MR. STEWART: I am wondering how far this leads us into barter arrangements?

MR. BROWNSTONE: Well, it could lead into barter arrangements.

MR. STEWART: And you would be quite happy with barter arrangements?

MR. BROWNSTONE: Yes, I think so.

THE CHAIRMAN: What classes of goods would you import, to narrow it down again, keeping it to the United Kingdom if you are talking about traditional markets? What classes of goods would you consider importing from that area under a barter arrangement, or any other arrangement?

MR. BROWNSTONE: Well, as is indicated



in the statement submitted initially, this question would have to be considered in terms of national welfare; in other words increases in our imports of textile goods, our tractors, our automobiles, will obviously have an effect on the home production. But I suggest that if we treat this in a broad national framework we can arrive at the same conclusion I arrive at when I say we have to consider the impact on the rest of the economy. But our argument is that the impact will be a positive impact, even if we do substitute imports of some of these goods for our present production, and more so for potential production of these goods domestically. We can absorb some of our increase in demand for consumer goods by imports rather than by domestic production.

These possibilities have to be considered, I think.

THE CHAIRMAN: You more or less summarize it on page 78, when you are talking about the foreign demand outlook, and you say:

"At the same time it will be necessary to solve some difficult problems before the latent demand can become effective."

You mention exchange problems stemming from failure to trade, which is the point we have just been talking about. You also mention political barriers; lack of purchasing power in the underdeveloped areas, and an inadequate international marketing structure. The point I would like to make is that these certainly are





not simple problems.

MR. BROWNSTONE: No.

THE CHAIRMAN: People have been working on them for a long time. I would like to ask whether it is your thought that these problems of markets and marketing should be attacked first, or whether you should first proceed in the other direction which is indicated here, of taking various measures which will increase production. I do not think it is quite the chicken or the egg again, because if you do step up production before a solution has been found to the marketing and market problems, which you have outlined here, presumably there will be surpluses with no machinery to take care of them.

What in your view is the logical approach to this dual question?

MR. BROWNSTONE: Well, my basic approach is to postulate an effective demand first, so that this is my basic assumption: That we need to attack the problem of demand first, and production increase is nonsense if the demand is not there, and if we do not direct these measures to develop a strong, effective demand.

THE CHAIRMAN: That is the point I wanted. I thought that was your point, but I wanted to bring it out; that the first problem, or the first series of problems, is to sort out the markets on the demand side, because until that is done it would seem foolish to step up production.

MR. BROWNSTONE: That is right. But



these things do not happen overnight. I think they proceed together.

MR. STEWART: Thank you; Mr. Gordon has followed through what I had in mind.

I am referring now to page 58, where you have reference to the potentialities of markets in the underdeveloped countries. Your emphasis there is that a first step in providing a demand for Canadian farm products is the industrialization of these countries.

Is it your knowledge from activities under the Colombo plan, limited as they undoubtedly are, that this is the primary concern?

MR. BROWNSTONE: Under the Colombo plan I would say all the emphasis has been placed on developing agricultural production in those areas as a first step in terms of their own needs.

MR. STEWART: Is this not a significant factor, then, if you try to visualize a growth of effective demand for Canadian products there?

MR. BROWNSTONE: Yes; but I come to the conclusion that effective demand will overreach the production potential there in the long run. In the shorter run I think we should provide food on a gift or loan basis to those areas. What I have in mind is the Colombo plan to raise nutritional levels.

MR. STEWART: Whom do you mean by "we"?

MR. BROWNSTONE: I mean Canada and the United States, both countries with exportable surpluses.

MR. STEWART: Do you mean independently?





MR. BROWNSTONE: No; I think this would be done under international auspices. Some of our difficulties with the United States today stem from our failure to do these things by agreement.

MR. STEWART: We have to try to look ahead realistically in connection with these things. Is it your feeling that we can count on moving toward multilateral trade?

MR. BROWNSTONE: Yes, under agreement.

MR. STEWART: I wanted to fit this in with your conception of a world food plan, for example. You feel that is consistent with that kind of organization?

MR. BROWNSTONE: Yes, I think these are the main aspects of an organization like that, built largely on the basis of experience with individual commodity agreements we have today respecting wheat and so on. Experience gained under these schemes will provide us with a strong foundation for an organization which will deal with all these commodities, and will also deal with some of the more general problems such as exchange.

MR. STEWART: I find it very difficult to visualize a situation in which international trade is organized on that basis, when we have what is commonly thought of as free multilateral trade.

MR. BROWNSTONE: I do not think I follow you there. I am not postulating free international multilateral trade at all. I am postulating trade by agreement.

MR. STEWART: In other words, political



elements will enter into the trading situation?

MR. BROWNSTONE: Yes.

MR. STEWART: There is a reference on page 58 to the fact that you feel that there are political barriers to trade. "Barriers" is an emotional term, possibly. I expect that this is just political action in international trading. Do you feel that is weakening?

MR. BROWNSTONE: That is my opinion at the moment. From the experience at Geneva I might change my mind a little, but we have had some experience of some trade developing between the two major political blocs in the world, so I am reasonably optimistic. What else is there to be?

But I do not want to leave the impression that these thoughts are optimistic only and without some sense of realism. I think we have moved a long way toward the realization of the sort of thing we are suggesting here.

MR. STEWART: Yes, but I find it difficult to reconcile some of them with any kind of general multi-lateral trade.

In reference to the international wheat agreement, mentioned on page 63, I take it on that point you have this reference to a world marketing organization. Somewhere else you refer to a national livestock marketing agency?

MR. BROWNSTONE: Yes.

MR. STEWART: You are not suggesting that can happen overnight, but I wonder if you could





describe to us the manner in which you think we will proceed to the ultimate concept you have in mind.

At the moment, as you point out, marketing organizations are on a provincial basis. They may desire to develop either on a provincial basis, with a central selling agency, or they may wish to develop on a national basis. Precisely how do you visualize this development?

MR. BROWNSTONE: I think you have traced probably the main elements of that type of development. We probably have now a reasonably strong pressure for some sort of public intervention in marketing, and this expresses itself first in terms of local organizations, whether it be co-operatives or whether it be in terms of a provincial marketing act, with the producers forming their own marketing agencies in the provinces.

This sort of problem is found in many other provinces, certainly in the three prairie provinces and some of the eastern provinces. You have some governments approving the organized marketing by producer groups, and in some provinces you now have legislative provision for the integration of these agencies by means of central selling agencies.

I feel that in the field of livestock, for instance, the most feasible development in the shorter run would be a board or central agency dealing with the marketing, and ultimately I foresee the development of that agency to include all livestock commodities.



MR. STEWART: What are the impediments, or the reasons we do not get it tomorrow, say?

MR. BROWNSTONE: Well, one of the difficulties is the difference in legislation, for instance, in the various provinces. There really is no legal basis for organizing an agency unless you have a minimum of the same type of legislation in the various provinces. Then you have a difference in the degree of powers and in the scope of the programme; and this is a real barrier at present. But you have a hog marketing agency in Ontario, which is a very large consuming area; and this overcomes one of the other difficulties, which is the possible objection of consumer groups to agencies of this kind.

MR. STEWART: And you feel that we will move toward uniform legislation?

MR. BROWNSTONE: Yes. In fact we have moved toward it very rapidly in recent years. Ontario has revised its legislation. Alberta has revised part of its legislation concerning some commodities. The legislation is in force in Manitoba, Saskatchewan, British Columbia and some of the maritime provinces as well.

MR. GUSHUE: The suggestion is a little broader than that. The reference is to a national marketing policy.

MR. BROWNSTONE: That is right.

MR. GUSHUE: And a national marketing board. Would that involve the absorbing of the provincial boards? Is it a truly national marketing plan you have





in mind, or what does that reference mean?

MR. BROWNSTONE: That reference, in terms of an alternative type of development, is a reference to a government marketing board which would control the interprovincial marketing and export marketing, in conjunction with the provincial boards.

MR. GUSHUE: If you have a national board with powers of control, could it be limited by the powers of provincial boards and still be a national board?

MR. BROWNSTONE: Well, my assumption is that the national board will act in its own jurisdiction.

MR. GUSHUE: That would be all Canada, would it not?

MR. BROWNSTONE: I assume it would be restricted to interprovincial or export trade.

MR. GUSHUE: What about exports?

MR. BROWNSTONE: That would be a function of the national board. But I am not prepared to state the jurisdictional aspect except very broadly. There are problems there.

MR. GUSHUE: This is a constitutional problem?

MR. BROWNSTONE: Yes, and it has not been overcome yet.

MR. STEWART: You have used the term "public intervention" and I noted somewhere later in the brief that the marketing organizations are to be producer controlled. Do you call that public intervention?



MR. BROWNSTONE: Yes. It is a limited public, but certainly public.

MR. STEWART: I would call it a distinctly limited public. You have no preference as between producer controlled marketing boards and government agencies?

MR. BROWNSTONE: My own personal preference is for a broader public, in other words for a government rather than just producers.

MR. STEWART: Perhaps that is not the way I should put the question, because I do not want a personal opinion. What are we likely to get under a plan such as you suggest?

MR. BROWNSTONE: Well, I do not think there is any question but that first of all we will get our producer boards and ultimately, as I indicated, I think the thing will be controlled on a much broader basis.

MR. STEWART: Supposing you have a producer controlled national organization selling principally on the domestic market but perhaps doing some exporting as well. You have in fact a producer monopoly?

MR. BROWNSTONE: That's right.

MR. STEWART: How do you protect the public interest in that situation?

MR. BROWNSTONE: I think the only protection you can offer the public is in terms of government intervention.

MR. STEWART: That is government regulation of prices?





MR. BROWNSTONE: Or government taking over the function. Your maximum welfare is the chief ingredient. Again I am speaking personally. Perhaps Mr. Nollett would care to express his opinion on this matter.

MR. STEWART: I think it is correct to say that in view of the developments in the field of marketing, we are interested in seeing how this might develop in future. A doubt does come up, of course, as to whether these are to be producer controlled or whether they are to be government agencies, if we are going to proceed along these lines.

I gather that your feeling is that they would develop first of all as producer organizations and then, perhaps in order to protect the public interest in that situation, they would ultimately become government boards?

MR. BROWNSTONE: Yes. I would like to restrict my comments to protecting the consumer interest. There are other aspects that a government board can accomplish much more readily than a producer board can.

MR. STEWART: Then I refer to page 79. I realize, of course, that this is a question of opinion, but again this is a very important point. There you suggest that by its fiscal and monetary policies the federal government is in a position to regulate and maintain and expand the economy. In that connection you say there is little doubt that it can do so effectively.



Let us concede that governments have acquired a knowledge of using these skills for these purposes. Do you really feel that in an economy which, as you yourself indicate, is likely to be very largely dependent upon export trade and external relations -- do you really feel that in that situation it can be said that there is little doubt that the federal government by its monetary and fiscal policies can do these things?

MR. BROWNSTONE: Well, I think I will have to agree with you that this needs to be qualified, to the extent that the economy is not independent, is not isolated from our foreign markets and foreign trade.

On the other hand we should recognize that the foreign trade part of our national income has been declining over the past 20 or 30 years, and it is no longer as large an element as it was previously. So by that token the federal government has increased its ability to do this sort of thing.

MR. STEWART: Then on page 80 there is this statement:

"The attainment of the programme given above will result in stable producer income, commensurate with incomes of other producers in the economy."

That was edited and the last phrase was taken out. This is covered in the supplementary brief.

MR. BROWNSTONE: Yes.

MR. STEWART: I am sorry I did not check this against the revised copy, but is this





last paragraph left in:

"In order to assure producers  
of reasonable income --"

MR. BROWNSTONE: Yes.

MR. STEWART: "--and to maintain the  
general economy, a built-in programme of agricultural  
income supports is required as a permanent aspect  
of agricultural policy."

I wonder, again, for our guidance, if  
you could elaborate a little more on that. You go on  
to say:

"The most practical expression of  
this type of programme would be price  
supports geared to a reasonably high  
level of prices but operating only  
during periods of recession. Such  
programmes should apply to all  
agricultural producers, but should  
discriminate between high and low  
income farmers and should not burden  
consumers directly through market  
prices."

I wonder if you could particularize  
these somewhat general statements. Are you thinking,  
for example, of parity formula prices on these things?

MR. BROWNSTONE: Well, I am thinking  
broadly in terms of some sort of parity, but not  
particularly that parity approach. The basic principle  
is to relate it to a relatively high level of prices,  
and to tie agricultural prices in with the rest of



the economy. This would be the sort of parity interpretation here.

MR. STEWART: What I had in mind was that at the present time, under the Agricultural Prices Support Act, we have machinery, I presume, to do the sort of thing you have reference to here; but the determination of prices is a matter of board decision, as I understand it, though I am not just sure how it is done.

Is that an unsatisfactory technique, or do you want some kind of formula which would automatically determine what the level of support prices would be?

MR. BROWNSTONE: I think I would be satisfied with a formula which would definitely indicate when the price support programme would come into operation and when it would cease, since we indicate here that it would not operate at all levels of the business cycle. I am not prepared to suggest a specific technique, but this formula could come into effect in terms of relative unemployment, or in terms of relationship of agricultural prices to non-agricultural prices, or some such factors which would be an indicator of the general level of economic activity of the country and hence of the income level of the agricultural producers, since both these goals are included.

MR. STEWART: But it would apply to prices?

MR. BROWNSTONE: Yes, since I would say





that is the most practical expression of this sort of thing. I think the basic thing we should get at, if we are practical, would be income.

MR. STEWART: You do not think that is practical?

MR. BROWNSTONE: I think that is rather more difficult to achieve than a straight price programme.

MR. GUSHUE: Would you apply that to the product or to the producer?

MR. BROWNSTONE: To the producer.

MR. GUSHUE: Would your price support be applied to a product or to a producer?

MR. BROWNSTONE: The effect would be on the producer.

MR. STEWART: I think the question is, if it is attached to price, that is if this is a support price you are talking about determined by a formula, how do you discriminate between high and low income producers?

MR. BROWNSTONE: One technique would be to control the proportion of the product marketed by individual farmers supported by this price structure. It is done more easily in terms of wheat than in terms of livestock, but I think ways can be found to develop this sort of discrimination which would be justified in terms of the national welfare.

MR. STEWART: In relation to this paragraph, and I think also in relation to your reference to organized marketing and international marketing arrangements, do you really feel that this



mechanism can be operated without having production controls as part of the system?

MR. BROWNSTONE: Yes, I think so. In the first instance, I have no evidence at hand which would indicate that production controls are required in this type of programme, in the experience of the countries utilizing this sort of programme. So in my own mind there is no basic justification for considering production control.

MR. STEWART: You want the kind of prices, presumably, which would stabilize the farmers' income at some kind of level -- and I realize that the sentence was taken out -- which would raise his status in relation to other income receivers?

MR. BROWNSTONE: Yes, relative to what it would be without the price support.

MR. STEWART: Then that suggests, does it not, that you are in fact raising the level of his prices?

MR. BROWNSTONE: Yes, of his prices, but not necessarily the prices to the consumer.

MR. STEWART: Is there not at least an implication there that you might have to take a look at what he would do, production-wise, under those circumstances?

MR. BROWNSTONE: Yes; the second point is the relation of production to price.

MR. STEWART: But you do not think production controls are necessarily involved?

MR. BROWNSTONE: I think we have to





establish these points first. Production controls can only be required if price does in fact increase agricultural production beyond marketing capacity. From my point of view, in a great many agricultural commodities the production is inflexible and is relatively unresponsive to price changes. If you agree that this is so, then production controls are meaningless.

MR. STEWART: Yes, but it is not only that production is inflexible; it is not true that in the long run agricultural production has always resulted in prices which have brought incomes to the farm producers which were lower than those of other sections of the community.

MR. BROWNSTONE: Yes, but I do not think we can deal with this particular question in terms only of price-income relationship. We have to bring in our productivity relationship as an extension of your long-run situation.

MR. GRAUER: With respect to underdeveloped countries, do I understand the brief right that the feeling is that the primary compulsion of underdeveloped countries is toward industrialization, but that they have been more or less forced into devoting a substantial portion of their capital resources to agricultural improvement.

MR. BROWNSTONE: Yes, I think as a first necessary step to a nutritional level, and also as a means of raising the productivity of individuals living there.

MR. GRAUER: Do you look upon the under-



developed countries devoting their resources, or a substantial part of them, to agricultural improvement as more or less a temporary phase in their drive toward industrialization? Is that the implication?

MR. BROWNSTONE: No, I do not think that is so. I think they will continue to improve their agricultural techniques, and they will continue to make themselves as independent as possible of food imports.

MR. GRAUER: That being the case over a period of years, it would be pretty hard to assess to what extent they would be a market for Canadian agricultural surplus products?

MR. BROWNSTONE: Yes, I agree that the projection is difficult. We can estimate the population situation now and project it. We can take the nutritional requirement now and project it, and also project the potential agricultural output derived from technological improvement; and on the basis of these various factors we assume there will remain a demand for imports, which can only become effective if incomes are increased, which again, of course, is related to the industrialization process.

MR. GRAUER: The next question I wanted to look into related more to the general introduction to the report. As was stated, I believe, the brief is put in an optimistic framework. It believes that there will be a good general expansion in the resource industries and the non-agricultural side of the economy, and that the momentum that is already





developing in industrial development and that there will be a continuation of that momentum, and it asks for -- I believe these are the exact words -- "an imaginative co-operative effort in resource development on the part of the federal government" which would be superimposed upon this expansion economy.

I may have missed it, but I did not see anywhere in the brief any fear of the problems associated with inflation, or any reference to the timing of the various developments which are on the broad canvas going along on all fronts, with relation to available capital and labour and, for that matter, markets, although that part has been gone into.

What is the view of the government with relation to possible dangers of inflation if we try to do too much at one time; or to put it in another way, what is the timing concept in this rather broad programme which is put forward?

MR. SHOYAMA: On the general question of the additional investment of capital if the federal government were to intervene, we do think in so far as resource development is concerned, the investment of capital in improving access to resources will open up additional opportunities for the inflow of private capital, and that we will therefore open up additional employment opportunities.

There is, I think, a very proper and continuing concern that the scope of investment in the economy may not continue at the high level that has obtained since the end of the war. There is always a



concern about declining investment opportunities, and we think that to a very large extent there will be a need in fact to supervise the opportunities for this continuous and high level of investment as a means of maintaining full employment and income throughout the country generally. We would be concerned that the recession of 1954 could possibly have deepened into a more serious situation.

We are perhaps less concerned with the possibility of inflation than we are about the more constant or more traditional preoccupation with the possibility of deflation.

MR. GRAUER: But you have assumed, have you not, that we now know how to handle monetary and credit resources so we will not have depressions? Is that not one of the assumptions?

MR. SHOYAMA: That is right; and one of the techniques, of course, is that there be a balancing element of public investment so that if we are in a position where we are not fully employed, and we would have on hand long-range needs where we are going to have to continue to open up an extensive prospect of investment opportunity, we must at the same time be careful that enough of the nation's output is funneled, probably through government channels, into maintaining that long-range prospect rather than having a diminishing level of public investment, which means that in fact the required long-range opportunities for investment will diminish.

MR. GRAUER: To some extent, then, you





regard the programme of co-operation between the federal government and the province as a balancing one, which would be turned up should there be signs of a slackening in the economic activity, and unemployment?

MR. SHOYAMA: Very definitely.

MR. GRAUER: And would be turned down, then, should there be pressure upon the labour supply and capital resources?

MR. SHOYAMA: I think undoubtedly the federal government would have to take that broad viewpoint. We do think, however, that there are regions of the country which have special needs, and we do think that Saskatchewan in particular, and some of the other areas of the country, have a greater need for the kind of investment which will open up new opportunities which will lead to diversification of the economy.

Our concern in Saskatchewan is that the so-called public investment is not likely to be as much use to us as long-range capital resource development. One conception of public works is a means of dealing with unemployment conditions, but we suggest that the expenditure of capital funds on public works projects, even though it may be a quite useful social programme, is likely to lead to considerable leakage of that investment into other areas of the country, and our concern is that the resource base should be sufficiently expanded during times when there is an effective market demand for resources, because we do think there is a tremendous



self-generation of the economy. Our concern has been that so far we have lacked the broad resource base that will see the economy through its ups and downs.

MR. GRAUER: This timing approach, the timing concept, rather affects various aspects of the representations throughout.

MR. SHOYAMA: Yes.

MR. GRAUER: On the agricultural side, for instance, it was pointed out this morning that expanded agricultural production would be required, and there were various ways in which it was suggested that could be brought about, such as land use surveys and advice, more scientific farming, greater use of fertilizer, more mechanization, larger farms and so on.

At the same time it was also suggested that steps should be taken to bring in fairly substantial quantities of new land. I would take it that some of these things would be much more pressing than others, and that if there were a question of pressure upon capital resources, generally speaking that would not be the time to take capital for the purpose of clearing new land and bringing new land into being, when there were all these other ways of increasing productivity on existing land, if that were required. Is it that sort of approach?

MR. SHOYAMA: That might very well be. There is this aspect, however, that these programmes of bringing new land into cultivation, or irrigation projects, are programmes which do take years to develop. For instance, even in the irrigation areas





of Alberta, which were begun during the first world war, some of them are only now coming into full productivity; and we think a start -- which, by the way, can be accelerated or decelerated as conditions require, might be made.

MR. GRAUER: There is an interesting problem which may arise there, I think. Presumably the federal government, as you have just intimated, having the largest sphere of authority, would have the chief responsibility for deciding what was the priority of the various claims upon such things as labour supply and capital resources. Each province, of course, can think of a large number of reasons why it should have perhaps a larger share than some other region.

Do you have any ideas in that connection, or are you prepared to leave this to the federal government; or is there some suggestion of a new technique which might be evolved by which these things would have to be allocated, of course not only to Saskatchewan but to other regions of the country?

MR. SHOYAMA: I think re quoting the section in our submission refutes some suggestions which were put forward at the recent federal-provincial conference, among them the suggestion of resource development. The federal government has indicated willingness to co-operate in bits and pieces; but when you come up against the administrative officials, who perhaps are not as impressed with the broad objective of the programme, you do run into a great many bottle-necks.



A very similar situation applies, for instance, in an entirely different field, that of health grants, where you have certain fixed, pigeon-holed, measures of assistance which do not in fact meet the particular needs of a particular region. The programme is conceived in Ottawa, probably in the national interest, but may not in fact fit in with the requirements of a particular region. Our feeling is that probably better use of those federal grants could be made if they were put on a more flexible basis.

MR. GRAUER: I suppose the provincial governments run into some of these problems in dealing with their own municipalities, where the municipalities probably feel that they are not being treated as wisely as they themselves could suggest with respect to their own local problems; but by and large I presume it is done either through a process which would operate under statutory provisions, of course, or through closer co-operation by means of conferences and meetings?

MR. SHOYAMA: I believe a great deal could be accomplished by either or both.

THE CHAIRMAN: Mr. Brownstone, I would like to go back to one point about which Dr. Stewart was asking you some questions. On page 20, in referring to the reports of the royal commission on agriculture which have been published and which we will look forward to studying, there is item 5, which I would like to read:

"Under the impact of mechanization,





farm costs have increased steadily and have become much more inflexible. While larger farming units are now better able to meet the effects of economic recession, the farmer on one-half section or less is more vulnerable than ever before."

I take it that it is because of that situation that you were suggesting that in any price support system there might be some formula for adjusting or discriminating between large and small farmers. Is that a correct presumption?

MR. BROWNSTONE: Yes, sir. I think the discriminating would have two effects. First of all it would help the farmer in terms of his standard of living, the lower income farmer more than the higher income farmer. In the second place it would put the smaller farmer in a position where he could improve his situation vis-a-vis the larger farmer, in terms of competing for resources and so on.

THE CHAIRMAN: Are the advantages of the large scale operation so much greater than those of the smaller that the trend toward larger farms is likely to continue in all parts of the province, not only in the southwestern section about which we were hearing?

MR. BROWNSTONE: Yes, I would think so.

THE CHAIRMAN: That seems to be true in all the agricultural communities right across the country, but I wanted to know if it were equally true here in your province.



MR. BROWNSTONE: Yes, I think in general it is equally true. There are regional differences; the southwest has progressed much more rapidly along this road than the northeast, so you would expect a somewhat more rapid rate of adjustment in those areas.

THE CHAIRMAN: And the problems and the hoped-for solutions to the problems which apply to the smaller farms and the lower income farmers, or the marginal groups, are quite different, I take it, from the problems that apply in the case of the big operators. Mr. Lussier and I were wondering if there should not be another term for these farmers who operate these very large acreages, because they are different to some of the farmers we think of in other parts of the country.

MR. BROWNSTONE: Well, all the assumptions are based on a continuation of the present price levels and present productivity levels and so on. If you change the type of farming or change the price-cost relationship, then you add a qualification to all these trends.

Coming to the other point, I think it is true that the small farmer, the uneconomic farmer, needs special treatment in all the provinces, despite the fact that we have the highest level of agricultural productivity in this province. Pardon me; we trail Alberta by a very small margin; but we have a long way to go yet.

THE CHAIRMAN: Mr. Nollett, when you were speaking you referred to two matters, a national conservation plan and long-term agricultural credits. I wonder





if you would like to expand on those just briefly.

MR. NOLLETT: Yes. First, on the comprehensive soil and water surveys development programme for Canada, we meet as provincial ministers in annual conference every year, and this is one subject which is always on the agenda. Our federal policies of assistance in resource development now are in bits and pieces. We have marshland reclamation in the maritimes; we have P. F. R. A. in Saskatchewan, and it is limited in its scope as has been indicated. We would like to see a more comprehensive, uniform programme developed, so the provinces would know where they stood on this matter of federal assistance, the extent of it and all the rest. Now it is just complete confusion.

In our province P. F. R. A. is intended to conserve water, and the division here is that they build the reservoirs and we do the distribution of the water, but nothing is said about drainage. Well, you can reclaim land and improve it either by irrigation or by drainage, and we would like to see that programme extended. We think it is an excellent programme, and we would like to see it made all inclusive right across Canada on a uniform basis throughout. We would like to see some of it, too, on the basis where the provincial government, having its own organized agencies, could do the work, submit the accounts and get payment for it, just as we do now in the province, generally on a 50-50 basis.

We would like to see that because we have



a staff of trained engineers built up, and often if you have two government agencies in the same field it leads to confusion. We would like to see the whole thing cleared up.

In the matter of long-term credit, I should remark that too much credit of any kind is not good; but there is a great need for credit to establish young people who want to engage in agriculture. We have the problem of the farmer wishing to retire, and of course he wants to get as much cash out of his place as he can. The smaller farmer is particularly in this position, with the result that he is looking for a cash purchaser, and it is generally the big farmer who is in a position to make such a transaction. In addition, the big farmer can pay more for the land by adding it to what is already quite a large unit, than a small farmer, a young man with a quarter section, who wants to buy a half section over there. He will say, "I will give you so much, and that is the limit I can go," but a farmer with a section and a half will come along and say, "I will give you so much more, all cash."

To meet that kind of situation, long-term credit at low interest rates would be very helpful, and it would also help farmers to improve their plant. Our plant in Saskatchewan is run down. We have buildings, including homes, which are simply dilapidated, which have never been rebuilt, and for that purpose long-term loans are needed.

MR. GUSHUE: What would be the machinery?





MR. NOLLETT: We think it should be a national agency -- the national government can get money cheaper -- somewhat similar to the regional credit corporation in the United States. I think it has done an awful lot of good down there.

MR. GRAUER: Do these small farmers have any supplementary source of income to any extent, from such things as logging or trapping?

MR. NOLLETT: Some do in the north, but that supplementary income is not sufficient, because it is a submarginal unit now. Yes, there is some supplementary income available.

MR. GRAUER: Does it affect many of them, or is it pretty insignificant?

MR. NOLLETT: I would not say it is of great consequence. If we had a big pulwood industry it would be quite significant as far as the north is concerned. Here a farmer is a farmer, with mechanized equipment. It is not a family proposition, as you think in terms of farms in Quebec and the maritimes. It is definitely a business here; he either is or he aint.

THE CHAIRMAN: Thank you very much, Mr. Nollett; we are grateful to you and to Mr. Brownstone and Mr. Horner and Mr. Shoyama for answering these questions, and I can assure you that we will have more questions that we will put to you indirectly through the members of the staffs over the next several months.

Mr. Blakeney, with your approval, there



are two gentlemen here who would like to get away and who wish to file briefs with us. If you would agree, we might ask them to do that before we break off for lunch, and then carry on with your presentation immediately afterward.

MR. BLAKENEY: That would be quite satisfactory. I might say that if the commission would like, we can file the report of the royal commission on agriculture and rural life, dealing with agricultural credit. It covers this point of loans and advances to farmers.

THE CHAIRMAN: I think we would like to have copies of all the reports that have been published so far by the royal commission, if we might ask for those.

MR. BLAKENEY: Very well.

THE CHAIRMAN: Is Mr. Lewrey here, the mayor of Moose Jaw? As some of you are leaving, I might announce that we will resume after lunch at 2.30, in the Legislative Assembly.

MAYOR L. H. LEWREY: I appreciate very much the privilege you have given me of interrupting the representations being made to the commission by the government of Saskatchewan. I do not wish to abuse the privilege, but merely wish to file copies of our short, prepared brief submitted to you on behalf of the city of Moose Jaw, which I hope you will be able to read at a more appropriate time.

I was interested in your terms of





reference, setting up this commission. I read in the newspapers and heard over the radio that part of your job will be forecasting the future of Canada. I am not a member of the legal profession, but I hope your commission is safely and legally protected, since I understand that to forecast the future is an indictable offence under the Criminal Code of Canada.

Seriously, again I extend our thanks for the privilege of presenting our brief at this time.

THE CHAIRMAN: I am grateful to you for the warning, and we will ask our counsel to look into this matter for us. Thank you very much. Your brief will be marked Exhibit 36.

Now is Mr. Goos, manager of the Prince Albert Chamber of Commerce, here? He does not appear to be here, so we will adjourn now until 2.30.

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---At 12.55 p. m. the commission  
adjourned.



---At 2.30 p. m. the commission resumed.

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THE CHAIRMAN: Shall we come to order, gentlemen?

MR. BLAKENEY: The next witness we call is Mr. Brockelbank, Minister of Natural Resources.

MR. BROCKELBANK: Mr. Chairman and commissioners, before I commence to present my remarks there are a few things I would like to bring to your attention.

The provincial brief has an appendix to chapter 4, and there is now supplied a substitution for that appendix. This appendix is entitled "Estimation of ultimate oil and gas reserves -- Saskatchewan" and it has the same total figures, but there are some alterations made in the method of calculation.

I have also a number of publications which you might wish to have. I have the last annual report of the Department of Natural Resources; a report on the growth and yield of black spruce in Saskatchewan; four forest inventory reports on four different areas of the province; a booklet "Saskatchewan's forests"; a number of forest cover maps which were made in the process of making the forest inventory. This is not nearly all the maps we have; we just brought a few for samples. If you wish to have more we can get the full set. Then I have the first annual report, which incidentally is the last annual report, of the Department of Mineral Resources, which was just organized on April 1,





1953. I have the statistical year book for the petroleum and natural gas in the province of Saskatchewan. This year book contains information covering the year 1954, but carries back statistics to the beginning of the century. We will also be able to leave with you either this map of the province or a plain one, whichever you prefer.

In presenting to you chapter IV entitled "Outlook for Resource Development", I do not wish to repeat what the brief contains except perhaps by way of emphasis, but I would like with your permission to add some comments and suggestions.

You will know that Saskatchewan is not called "the prairie province" because it is all prairie, but rather because it contains the largest part of the western Canadian prairie. Other types of land are varied and very extensive.

On page 84 of the brief you will notice that over 62 per cent of our most important forest area is in the small pole and reproduction classes and over 86 per cent is of less than saw timber size. When we remember that 1.3 million acres of saw timber, representing 13.5 per cent of this total block, will contain very large proportions of poplar and other hardwoods for which there is a very limited market at the present time we realize that the economically productive part of our forest area at the present time is very small. This is only partly due to the pioneer practices of cutting timber without regard for preservation of the capital stock and the lack of



forest fire control in those early years.

The other important reason is the geographical location of our forests in relation to the heavy consuming areas of forest products and particularly of wood fibres. As a consequence this generation in Saskatchewan has the burden of protecting and caring for a very extensive forest area with comparatively little production. If we are going to play fair with the future generations this burden must be carried.

The Canada Forestry Act was undoubtedly passed for the purpose of encouraging and assisting in conservation of our national forest resources in the broadest sense. We have appreciated very much the assistance we have received from the government of Canada under this act in the making of our forest inventory and in reforestation. I would like to point out, however, that reforestation can only be considered of minor importance to us at the present time. Our big problem is to protect and manage the great area of young forest which has been reproduced naturally. We are, therefore, very much interested in getting further programmes implemented under the Canada Forestry Act.

In our province, we have had years with little rainfall in the forest and disastrous forest fires. Those dry years will come again, and although I think we have a good organization for fire prevention and suppression, compared to other areas, there is still much that could be done to reduce this hazard.





I would suggest there is a need for a programme under the Canada Forestry Act in this field.

Our fisheries are very small compared to those of certain other provinces of Canada, but they are economically very important to our northern people, both Indian and Metis. Much of our fisheries are marginal, not because the quality of the product is inferior, but again because of the geographical location, far from the large consuming markets and with the difficulties of transportation from our northern lakes.

The map we will leave with you will show the location of many of those lakes.

Processing of Saskatchewan fish into fillets and steaks, quick frozen, has probably gone farther than in any other inland fishery in Canada. One co-operative packing and filleting quick freezing and cold storage plant received a grant to assist in capital construction from the government of Canada and also provincial guarantees to assist in financing. This policy on the part of the federal government is very commendable and could well be extended.

On account of the marginal nature of much of this industry the province has set up a crown corporation known as "the Saskatchewan fish marketing service", which is a sales agency the fishermen may use. This agency takes a commission on a poundage basis to pay its expenses and returns the total balance to the fishermen. Because many fishermen on northern lakes could not fish without getting a cash advance price for their fish on the



lake and in some cases credit, it was found necessary to institute a guaranteed advance price in many cases. The Department of Natural Resources gives this guarantee. Almost every season the fish from at least some lakes fail to bring the guaranteed advanced price, plus the other costs, and in many instances I have had to ask the legislature to vote substantial sums to implement these guarantees. Treaty Indians who are the responsibility of the national government, as well as Metis and white fishermen benefit by these guarantees. We would appreciate a sharing of the responsibility for the guarantees with the Indian Affairs branch of the government of Canada.

You will note on page 88 of the brief that our knowledge of our fish resources is very limited. We employ three full time biologists in the fisheries branch of the department, but we find we are unable to carry on as many biological surveys as are needed in the best interests of this industry.

Transportation problems in the fishing industry are acute. We have now near completion a 60 mile road from Reindeer Lake to Lynn Lake, Manitoba, for the purpose of getting fish from this lake to railhead. This road is less than two miles in Saskatchewan; the balance is in Manitoba. We received a grant of \$15,000 from the government of Manitoba, but it was our fish we wanted to get to market. It is being built as an all weather direct road.

THE CHAIRMAN: By the province of Saskatchewan?





MR. BROCKELBANK: By the province of Saskatchewan.

In the west central portion of the province a road is under construction to Buffalo Narrows, which is important to the fishing area. That western area is quite an important area for the production of fish. However, there are many other cases where access roads would help this industry.

We appreciate the policy of the federal government in the construction of wharves and airfields and hope for a continuation and extension of these programmes.

In our pre-Cambrian mining areas and potential mining areas transportation is the number one problem. Saskatchewan has only one road leading from railhead to the edge of the pre-Cambrian shield at Lac la Ronge. That is from Prince Albert to Lac la Ronge. The southern edge of the pre-Cambrian shield can be seen very well on this map. A few years ago the federal government, a mining company and the provincial government jointly bore the cost of the construction of a portage road from Stony Rapids to Black Lake, a distance of about 14 miles of comparatively easy construction. Later when the Eldorado Mining and Refining Company was about to open the mine at Beaverlodge that company, together with some small contributions from smaller mining companies in the area, the federal government and the provincial government constructed a road approximately 15 miles long from Black Bay on Lake Athabasca to



serve this mine in particular and the area in general.

As Eldorado Mining and Refining is a crown corporation owned by the government of Canada, I have since often wondered who on that occasion was assisting whom. Since that occasion we have received no further assistance for the construction of mining roads from the federal government.

No Saskatchewan railhead at the present time is within 100 miles of the pre-Cambrian shield. I hope when the time is opportune the extension of a line from a Saskatchewan railhead will not be neglected.

Modern air transportation is most important in the prospecting and exploration stages of mineral development. Here again the provision of airfields is of great importance so as to avoid the long periods of lay-off for pontoon and ski-equipped planes on account of freeze-up and break-up periods. We are presently receiving some assistance for improvement of one main airfield -- that is at Lac la Ronge -- and I am hopeful this programme will be continued by the federal government. From a national defence point of view I believe there is a good argument for airfields at a number of points in the north part of our province.

The old historic method of transportation in the north has been by water and is still of considerable importance. The whole Beaverlodge mining area surrounding Uranium City, as well as the fishing industry on Lake Athabasca and supplies for other settlements depend upon water transportation on the Athabasca river for heavy goods. Although Northern Transportation Company,





which is a subsidiary of Eldorado Mining and Refining Company, and other carriers have done a very big job of transportation from Waterways, Alberta, to the Beaverlodge area and other points on Lake Athabasca, as well as into the Northwest Territories, the full requirements have not been met. I might interject that as a result, in the Beaverlodge area the oil company has rationed the gasoline, and exploratory diamond drillers have had to shut down.

People of long experience in water transportation have informed me that much could be done by way of channel improvement and navigation aids to accelerate transportation on the Athabasca river which is the lifeline of transportation for many of these important northern communities.

I might point out that Waterways, Alberta, is just about where I am pointing off this map, and the Athabasca river comes into Waterways from the west, joins with the Clearwater river and runs northward and on into the Mackenzie river system. Waterways is connected by Northern Alberta Railways -- which incidentally is jointly owned by the Canadian National Railways and the Canadian Pacific Railway -- with Edmonton; and it is this stretch of the river, which would be 125 to 150 miles of river, that gives a great deal of trouble. The open water season is short and the costs of transportation are high. It has been said to me that the freight rates on this mileage of railway from Edmonton to Waterways is a great deal



higher than on other comparable mileage of railway line. It is very desirable to accelerate the movement of freight by this route and, if possible, to reduce the cost.

Topographical base mapping from new vertical photographs is lagging. As a result we do not have available accurate base maps on which to plot our detailed geological information gathered by our survey parties. During the last decade there has been very little reconnaissance geological mapping done by the federal government. These tasks have generally been recognized as a federal responsibility.

One reason which has been given for this work being delayed is the lack of technical personnel. This is a common problem. Canada's rapid development has created a real need for more technical personnel in many lines. No province can take very effective action to remedy their own situation as Saskatchewan graduates are very liable to work in one of the other nine provinces. A national policy designed to improve this situation could do much.

The last paragraph in chapter IV, page 115, points to the question of greater use of Canadian capital. We have no prejudice against any capital on account of its origin and we appreciate very much the great amount of work done in our province by American and other foreign capital. However, as Canadians we could not but wish that Canadian capital took a larger part.

We find that of Saskatchewan's proven reserves of oil and gas only from 5 to 7 per cent





are owned by Canadian companies with Canadian control. Around 25 per cent are owned by Canadian companies which have foreign control, and over 65 per cent are owned by foreign companies.

In the fields of industrial minerals and hard rock mining the situation is quite different. However, I would like to call your attention to the last sentence of this chapter which reads,

"If it is the policy of the federal government to encourage the fullest possible participation and ownership of resources by Canadian capital in the expansion of the domestic economy, a careful review and action to remove any competitive disabilities suffered by Canadian companies should be suggested."

In summary, I would say that the important things which can be done to accelerate the development of Saskatchewan's northern resources would be the construction of more access roads to assist in the protection of our forests from fire, transportation of fish and transportation of mining supplies and mineral products; more and better airfields, wharves where necessary, channel improvement and navigation aids on the Athabasca river and railway extension as soon as feasible. Important also is the extension of programmes under the Canada Forestry Act to include fire protection, and further assistance to the fishing industry by way of biological surveys and processing plants. Mapping programmes and technical personnel problems deserve attention.



You might wonder why I suggest that the federal government should participate to a much greater extent in these programmes. That is a very legitimate question, but I believe I have good reasons. First is the geography and topography of northern Saskatchewan. Although Saskatchewan gets some primary direct benefits by way of royalties and rentals from these northern enterprises, a very large part of the secondary benefits go to other parts of Canada, notably our neighbouring provinces.

If you will look at the map you will see that because of the shape of our province and the topography, the main traffic to and from the Beaverlodge mining area goes to Alberta, with Alberta getting the secondary benefits. On the east side we have a similar situation at Flin Flon, where the mine is 80 per cent Saskatchewan but practically all the traffic goes through Manitoba, fish from Reindeer lake going that way as well. And I might point out that the Saskatchewan baby, which is only 50 years old now, has not much to say about drawing these boundary lines.

The second reason is that I believe it is just good business for Canada. I have here a card from the Hudson Bay Mining and Smelting Company, addressed to the shareholders, which shows that in the first nine months of 1955, their estimated net earnings after deducting all operating costs, including administration, depreciation, depletion, ore royalty and all taxes, are over \$14 1/2 million. Royalty payable to Saskatchewan during that period will probably be about \$1 1/2 million.





I feel sure that the revenue to the government of Canada from this enterprise will be three or probably four times our provincial royalty. To a considerable extent this situation will also exist in regard to other mines in northern Saskatchewan.

The third reason is the responsibility of the government of Canada to the treaty Indians of the north. I believe they do deserve more attention. Though we never discriminate against them, we do feel that we cannot do as much for them as the government of Canada, which has the responsibility. Saskatchewan is doing its part in encouraging development of these resources. Every penny I can wheedle from the provincial treasurer I put into it. I hope he is here.

I would also suggest that grants in assistance of any programme such as I have mentioned should not be based on increased provincial expenditure, but rather on new projects.

Our province will in the future be even greater in agriculture than it is today. I am sure everybody is convinced of that after this morning. Nevertheless, we have our eyes on other things for the future, too. Within the next quarter century our primary products from resources other than agricultural land could very well equal in value the present value of agricultural primary products. This changing economy will bring Saskatchewan a new stability and strength.

We are very conscious of the fact that we are Canadians and we want to make our full contribution to our nation. We have appreciated the good co-operation and the assistance we have received from the national



government. We can press on to our objective with more of this co-operative effort which will benefit both Canada and Saskatchewan.

Thank you.

THE CHAIRMAN: Thank you very much, Mr. Brockelbank. I do not know where we should start these questions, but if I might I will ask you one about a matter that came up toward the end of your remarks. On page 115 of the brief there is a fairly long paragraph about the extent of foreign investment and the hesitancy on the part of Canadian capital to invest freely in the development of the national resource industries. You say:

"Among the problems mentioned by Canadian companies in this connection, however, is the fact that under the combined impact of the United States and Canadian federal income tax laws and regulations, the American-owned companies operating in this country enjoy a competitive tax advantage over Canadian companies."

I wonder if you are in a position to amplify that in any detail. This is something we certainly will be looking into, but I thought if you were in a position to amplify that here it would button down that particular point.

MR. BROCKELBANK: I certainly cannot do that, sir.

MR. SHOYAMA: This is not a field in





which I pretend to have any technical knowledge, but it arises particularly out of the treatment of depletion under the United States income tax law and the Canadian income tax law. The government here has had some views expressed to it by some of the Canadian-owned companies, to the effect that because of the different manner in which depletion provisions are dealt with, the United States companies are able to write off against their income, against their taxable income, certain provisions for depletion which are not accorded to Canadian companies operating in Canada; and the combined effect is that the Canadian income tax law discriminates. It is not that there is any discrimination in the Canadian income tax itself, but because of the fact that United States capital operating in foreign countries can take advantage of United States income tax provisions, it therefore puts them in a better position than a Canadian company operating in Canada.

THE CHAIRMAN: In other words they were thinking primarily of the United States federal treasury in a sense bonusing United States companies that are operating up here?

MR. SHOYAMA: That is correct.

MR. STEWART: Are the depletion allowances for the United States companies in Canada the same as the depletion allowances for companies in the United States, or is this a special condition affecting investment outside of the country?

MR. SHOYAMA: To the best of my knowledge they apply both in the United States and outside the



United States.

THE CHAIRMAN: On the page before that, page 114, you refer to the essential air transport that is provided by the Saskatchewan Government Airways. As far as I know there are no other provincially-owned government airways. I suppose the lands and forests departments of the other provinces have aircraft, but there are no separately incorporated companies that I know of that are provincially controlled.

I wonder if you would tell us something about the Saskatchewan Government Airways; how many aircraft they operate, what part of the province they operate in and so on. In the first instance were they started as a measure for taking care of people who were sick in outlying areas, or was that just incidental to the creation of the company?

MR. BROCKELBANK: We have two air operations that are owned and operated by the government. One is the Saskatchewan Air Ambulance, which is operated by the Department of Public Health for the purpose you mention, and that organization has planes based here at Regina and at Saskatoon. In the far north the ambulance work is done by Saskatchewan Government Airways, which is a crown corporation, but paid for by the Department of Public Health.

Saskatchewan Government Airways had its origin in the Department of Natural Resources. It was found many, many years ago that there was a certain amount of air service needed in the north for purposes of administration. I do not know when





the first plane was purchased, but I know there were a number purchased in 1945, I believe, and then about two years later it was organized as a crown corporation, because not only was it necessary to carry on the service for the government, but the area was much in need of an organization to come in with transportation service. There was a considerable amount of commercial work to do, which was not easily handled by a departmental organization, so the crown corporation was organized at that time.

It operates on the red lines shown on this map. These are the regular flying routes, and then there is charter work done all over the north. It does not have exclusive rights in the north by any means. There are other flying companies that have bases in the north.

We now operate about 20 or 21 planes, the largest being a DC3 and the smallest, which is a two-place, small plane.

THE CHAIRMAN: It is essentially a passenger service, then?

MR. BROCKELBANK: We carry a lot of freight. Prospectors and quite a few tourists go into these northern lakes, particularly our friends from across the border, to catch big fish. We have been doing fairly well, and giving good service.

THE CHAIRMAN: Do you expect it to expand?

MR. BROCKELBANK: I do not expect any great expansion in it. A great deal will depend on



other factors in development. If there is a great prospecting and staking rush in some area, that makes a great deal of work. I believe there will be a gradual increase in the business as the area develops.

THE CHAIRMAN: While we are on that subject, are there many people in the province who own their own planes? Do any of the people who operate very large farms own aircraft?

MR. BROCKELBANK: I do not know too much about that. A few, but not too many. There might be 20 or something like that in the province.

MR. LUSSIER: On page 84 you show in a table that there are over 5 million acres of non-productive forest. Why are they non-productive?

MR. BROCKELBANK: I believe that would be bare muskeg, to a great extent.

MR. LUSSIER: They are not forests at all?

MR. BROCKELBANK: No, they would not be forests at all; muskeg and other areas, probably, that for some reason are just not productive, largely on account of the soil.

MR. LUSSIER: You say you hope there is room for some more pulp mills.

MR. BROCKELBANK: We have none now.

MR. LUSSIER: You hope you may get a pulp mill industry here. You say there are four locations where you could instal a pulp mill on a sustained yield basis. What would be the capacity of these pulp mills?





MR. BROCKELBANK: They could be a very good size, well above the minimum necessary to get efficiency. I would say they could be anything from 100 tons a day up to probably a couple of hundred.

MR. GRAUER: I think it is suggested in the brief that the total potential is 1,000 tons a day. Would that mean four mills of 250 tons capacity?

MR. BROCKELBANK: Probably something of that nature.

MR. LUSSIER: Another interesting point you mention is this. You recommend that the Canada Forestry Act should also deal with fire protection. In what way would you recommend the improvement of that forestry act, for instance?

MR. BROCKELBANK: I do not know that the forestry act itself needs improvement. The Canada Forestry Act has a very broad clause in it:

"The minister may with the consent of the governor in council enter into agreements with any province for the protection, development or utilization of forest resources, including protection from fire, insects and diseases, forest inventories, silvicultural research, watershed protection, reforestation, forestry publicity and education, construction of roads and improvement of streams in forest areas, improvement of growing conditions and management of forests for continuous production."



So the act itself is very wide in its scope. It has only been used so far with regard to inventory and reforestation. In fire protection we would like to see many more access roads into the forests so it will be possible to get to fires quickly while they are small, and extinguish them. We have a crew of airborne firefighters or smoke jumpers, as they are called. On a good many occasions they parachute to near a fire; in other cases the plane lands on pontoons on a nearby lake, and they go in first. They are the shock troops.

There is more to be done in public education, and I suppose there is still more to be done in the way of actual equipment.

MR. GUSHUE: I was rather interested in your reference to your fish marketing arrangements. Does a good deal of your fish go to the United States?

MR. BROCKELBANK: A very large percentage of it goes to the Chicago, Detroit and New York markets.

MR. GUSHUE: You have never had any trouble over the fact that the government supplements the earnings of the fishermen; I mean customs difficulties?

MR. BROCKELBANK: No. We do not actually subsidize the fishermen in a general way.

MR. GUSHUE: You do it in another way.

MR. BROCKELBANK: We guarantee that if a man goes fishing, he will be able to eat.

MR. GUSHUE: And a loss to the province is quite common?

MR. BROCKELBANK: I have here the





history of the plan. This plan was started in the spring of 1949 and every year since then, except last year, the Department of Natural Resources has made payments to the fish marketing service for these losses. The smallest payment in any year was \$5,800. In one very bad year the payment was \$121,000. The next largest was \$44,000. We hope this year it will not be large, not more than a few thousand dollars.

MR. GRAUER: On page 8 of the supplementary representation you just presented you gave reasons why you suggest that the federal government should participate to a much greater extent in these programmes, the first of which was that a large part of the secondary benefits go to neighbouring provinces.

From that do I take it that these measures in which you thought the federal government might participate were intended to be restricted to Saskatchewan?

MR. BROCKELBANK: Well, sir, I think there was a special case there on account of the nature of our boundaries and the fact that we do miss these benefits. The same situation certainly does not exist to any extent at all in Ontario, and that is a special circumstance for which we in the province certainly have not been responsible. So I think it does deserve some special consideration.

MR. GRAUER: These were essentially Saskatchewan problems, then, and your proposals were directed to them alone?

MR. BROCKELBANK: Yes.

MR. STEWART: I have just one question



which I hope will not be taken too seriously. Up to 1931 the provinces of Alberta and Saskatchewan were pressing the federal government to turn the resources over to them. Do you detect any general tendency to turn them back to the federal government?

MR. BROCKELBANK: None whatever.

THE CHAIRMAN: I take it -- this is just a suggestion -- that the federal government having taken the first step of turning the resources over, now should help to develop them?

MR. BROCKELBANK: Well, Mr. Chairman, I think a pretty good case could be made there, too, because certainly the cream was taken from a lot of our renewable resources before we got hold of them as a province at all, in the first quarter of the century. I can tell you a good many other cases, too, one of which is rather interesting. A forest reserve was being set up in Manitoba. In this area the Hudson Bay Company had one and three quarters or two sections in each township over the area, and to buy them out the federal government set up a forest reserve in Manitoba and gave to the Hudson Bay Company the right to choose land in Saskatchewan to make up for the land they surrendered in Manitoba. As you know, they got the mineral rights as well. Incidentally, they chose the land in the area where the Coleville and Smiley oil fields are now located.

THE CHAIRMAN: That was forecasting of a pretty high order.

MR. BROCKELBANK: I know. But we do not feel





too happy about the way our resources were dealt with, and we not make any apologies for what we are saying about them now.

THE CHAIRMAN: As Dr. Stewart said, he did not expect that his question would be taken too seriously.

MR. BROCKELBANK: Well, I am not afraid you will take what I have said too seriously either.

THE CHAIRMAN: Thank you very much, Mr. Brockelbank.

MR. BLAKENEY: Mr. Chief Commissioner and commissioners and gentlemen, although the next chapter, which is chapter 5, deals with energy supply and demand, it was our intention with your permission to proceed to chapter 6, the development of manufacturing industry, and for that purpose to call upon Mr. D. H. F. Black, director of industrial development.

MR. BLACK: Mr. Chairman and gentlemen, the industrial development office has submitted a brief which forms a part of the submission of the government, and I am not going to go over that brief in detail at all; I will just try to sum up some of the factors which we consider the more important, and perhaps deal at some greater length with what we consider some of our problems to be.

There is almost universal recognition throughout the world, not only in Canada and the developed countries but in all the countries of the world, of the need for industrial development. We just accept it more or less as a truism, but in the



case of Saskatchewan we feel that the need is particularly great. One of the most important factors is that of the vulnerability of our economy. We are almost entirely, or have been until recently, an agricultural province, producing and dealing primarily in wheat. We have been subject to drought conditions, to the vagaries of the markets and to price fluctuations, so in many, many respects the economy of Saskatchewan is considerably more vulnerable than is found to be the case in most agricultural countries. We have all our eggs in one basket, and any disturbance of the markets and prices, or even in the weather, is something which has an immediate impact upon the whole of the province.

For that reason industrial development appears to all of us as one of the ways to stabilize that economy. I think that is truer to say of Saskatchewan, perhaps, than of the provinces of Manitoba and Alberta, and certainly of the formerly agricultural provinces of Quebec and Ontario.

There is another problem which points to the need for industrial development. That is, our agriculture is not intensive; it does not provide the possibilities for further growth in the population. The size of the farms is becoming greater, and there is this continuing pressure not to gain in total population but to lose population. Mechanization of the farms puts quite a pressure on industry to absorb the population which is leaving the rural areas. This is perhaps even more so than





we find in the other agricultural parts of Canada.

In Saskatchewan we have one of the lowest population densities in Canada, and without an increase in population our ability to provide the services which have become a common part of our welfare society is very greatly reduced. We have some 38 per cent of the roads in Canada; and to support the cost of these roads with a population density which is less than 4 per square mile is a very real problem. So for that reason again we feel Saskatchewan does need industry; and this all despite the fact that in the past few years we have been rather well off. That situation may be a passing one, and we cannot in the long term count on agriculture to fill up all the valleys.

Another further need, which is a general one, arises from the fact that historically, agriculture has never paid the type of returns on a per capita basis as has industry. No matter how hard you work; no matter how efficiently you work in agriculture, the per capita earnings in an area which is basically, as in our case, almost completely agricultural, in the long term will not equal those of the more industrialized areas.

I would like to give a short history of Saskatchewan's industrial development. It might be described in a word by saying that it started just 5 years ago. It is rather remarkable, in a country that has developed as much as Canada has, that Saskatchewan should have had little or no industry; and it is just since 1950 that we have



seen the real beginnings of some movement toward industrial development.

In the first 25 years following the birth of the province, the development was primarily that of filling the wide open spaces and bringing in some of the services that were needed by the farmers. Until that time there was very little industry other than the immediate mechanical services which the farmer required, and some development in the processing of agricultural products.

In the succeeding 10 year period, Saskatchewan probably suffered from the effects of the depression more than any other single area in the country, when we had drought superimposed upon low prices and depression conditions. During that period there was no incentive; there was no base upon which to build any industry, and industry was again postponed for a further decade.

Then during the war period the balance of Canada experienced rather remarkable growth. I believe the productivity jumped two to three times in the balance of the country. Saskatchewan had very little growth. The needs of war industry appeared to dictate that the industrial development which was needed and the production which was urgently required should take place in the eastern provinces, and as a result Saskatchewan, rather than gaining some industry during that period, actually lost some of its best people, not only to the armed forces but to the factories of eastern Canada. So





rather than experiencing the beginning of a growth during that period, Saskatchewan fell behind.

Actually her production in that period increased, with a very substantial increase in the production of agricultural products. The production of butter, cheese, bacon; meat packing -- those industries increased very rapidly. Our forests were rapidly cut during that period; actually they were seriously overcut. But those were only temporary increases in our industry, and at the termination of the war we actually experienced an immediate falling off in total industrial production.

During the succeeding period, as our forest cut was decreased and as our agricultural production also decreased, we were trying to match it with some increase in industry itself. So we find that during the fairly short history of Saskatchewan it is only during the last 5 years that factors have conspired to start us along the way to some industrial development. To that extent, therefore, we are the newest province in that field.

Most of the problems which had been encountered in the past and which are being encountered at the present time are perhaps primarily those experienced by any area which has very little industry upon which to build. We have had very few people in the province who have had the know how to develop new industry. We have had very few people who were interested in financial investment in industry. Our markets were small. We suffered during one period



from declining population, which provides no incentive at all to industrialists to come in, but rather the reverse. Our cities, which were designed to serve as wide an agricultural area as possible, so that our hospitals and our services could be located close to the farmers themselves, have been small and they are still small, and that in itself created marketing problems in that there was not the close and intensive market such as you would find, for example, in the city of Winnipeg.

Another deterrent to the growth of industry was the mental as well as the financial depression which occurred in the thirties. The psychological impact of that period on Saskatchewan's history and its people in the industrial sphere is only now beginning to disappear. Our small manufacturers; the operators of machine shops; our small industry in the province throughout the forties looked back to the ugly and miserable thirties as experiences which might possibly recur, and we did not see the natural resurgence or moving forward of our own people during that period, and even until this decade.

That has continued, but a new generation is growing up, and we feel that in a short time that particular problem will have disappeared. Up to the present it has been a very real problem.

We also suffered, until 1950, from a virtually complete lack of raw materials other than those connected with agriculture, and other than the raw materials derived from our forests. Since that





time the very much "have-not" province of Saskatchewan has experienced a complete about face, or a complete change, with probably one of the most rapid periods of development of natural resources that has ever been witnessed in Canada. From the point of being a definitely "have-not" province in terms of resources, we do feel that we have already discovered, or have evidence of future discovery, of at least our own share of the natural resources of Canada, not only in the northern area, with the uranium, copper, zinc and other metals; in our forested area, which 3 years ago we discovered had ten times the commercial timber we had previously thought, but also in the salt, the oil, the potash and many other industrial minerals.

That has created a tremendous change in the picture, not only in terms of confidence, not only in terms of activity such as flows from the development of oil. It has produced for us raw materials which can form the basis of industry, which as short a time ago as 1949 was considered impossible.

The present status of industry in the province, despite the perhaps gloomy picture I have drawn, we feel is rather encouraging. During the past 5 years we have experienced an increase of some 29 per cent in the gross value of production, and a 70 per cent increase over 1945. Our present gross value of production is \$282 million. It involves some 12,000 employees, which does not sound like too high a figure. Yet when we recognize that many others are dependent upon the manufacturing and service industries and others, it represents



probably one-eighth of our population who gain their livelihood either directly or indirectly from industrial pursuits. I might say that all this is in addition to the manufacturing connected with the extraction of minerals, the uranium and the oil and these other industries. I am referring particularly to manufacturing industries.

The main impetus, as I have said, has come through the development of natural resources. Another prominent cause for the impetus has resulted from the relative prosperity we have had in Saskatchewan throughout most of the forties and certainly into the fifties, despite the marketing problems, the frost, the rust and all the rest of it. The fact that the per capita income of Saskatchewan has gone up and has remained up for even a short period of time has encouraged our young people to start industry, and is encouraging others to come in. The market surveys that are made now, as compared with those of a very few years ago, are entirely different; and the prospects for industry, based on those earnings, are immeasurably better than they were just a few years ago.

We hope our good fortune will continue, and that we will find this a permanent characteristic of Saskatchewan's economy. Our people are much more confident, and within the province there is greater confidence in the economic present and future on the part of outsiders who are coming in in ever increasing numbers.

With regard to the future, we feel somewhat





on the optimistic side, and I think with good reason. We have made studies of industries representing some 81 per cent of the present gross value of production. Taking them separately, based upon their recent past experience; based also upon the expected growth in population; based upon special factors which we feel apply to such industries as forestry and petroleum refining, we have reached a figure of expected gross value of production in 1980 of \$600 million.

That represents an increase over 1954 of some 114 per cent. At the same time we estimate that the number of employees directly engaged in manufacturing pursuits will increase from 12,000 to 31,000, or an increase in that case of 158 per cent.

The reason for the difference between the two figures of 114 per cent and 158 per cent will be reflected, we feel, in the different types of industry which are developing in the province and which will continue to do so. So far in our history we have been generally capital intensive. The per capita earnings, or the gross value of production divided by the number of employees, represents a figure of some \$24,000, one of the highest in Canada. That is because some of our industries have been rather large flour mills, refineries and industries of that nature. We feel that the industry of the future will be directed more toward consumer goods to supply the local market. Some of them will be smaller industries, and they will be more labour intensive, and we feel we can count upon a



substantially higher labour content in the average cost of finished articles.

This is quite a substantial increase; yet there are a number of significant cases in which these increases can be supported. Probably the most important in our opinion will be the growth of our forest industries. At the present time we have forests which are practically unused. We believe our forests are perhaps equal to those of the province of New Brunswick, certainly in extent; yet we produce about one-thirteenth of their total production. The most recent figures I have seen for New Brunswick are about \$113 million, while our figure is about \$10 million.

I hope and expect that by 1980 one or more large pulp and paper mills will be established in the province, which may produce as much as \$60 million worth of products. We also expect that by that time there will be some increase in our cut of timber for lumber, and that we will also see a very rapid expansion and the introduction of new industries in the fields of construction, plywood, wallboard, and a number of other similar items. We hope to see a greater use of our poplar species, as demand for that material increases. So we feel that a figure of \$80 million or probably \$90 million is not too high to expect in the next 25 years.

The other large increase in manufacturing is a capital intensive one, the refining industry, which we expect to increase from its present level of





\$60 million to \$100 million. The other increases, based on activities already well under way, we think will take the form of garment industries, petrochemicals, and substantial increases in the production of furniture and secondary wood-using industries and others of that type.

During that period probably a few significant trends will take place. I think we will move away from reliance upon industries based on agricultural products, and move more toward our resources, and we will move one step further again to industries which are market-based.

For the first time we are experiencing an increase in our population. We are seeing a fairly reasonable balance of equilibrium in our personal income, and we are going to see the growth here of many industries which ordinarily are in eastern Canada, from whom we do obtain our supplies today. I think that is a natural development, and one which has already taken place to some extent.

I think a second development that will take place and will perhaps surprise many people, yet which seems very natural when one looks at the map of the prairie west, is that Saskatchewan, which so far has been the poor sister in terms of industry as far as the three western provinces are concerned, will become recognized as the local manufacturing -- if not marketing -- centre for the prairie west.

I do not think that is too optimistic



a suggestion, because we have seen evidences of it already. The recent announcement of two pipe plants coming to Regina was based precisely on that consideration, that Saskatchewan was demonstrably the most economic location anywhere in the prairie provinces. We recognize that Winnipeg and to a lesser extent Edmonton, as well as Calgary, are located on the fringe of the prairie, and that their growth has perhaps been more historical than economic. We believe we can expect -- this is looking into the future -- or we can look forward at some time to a gradually catching up on the part of Saskatchewan to those fringe cities. I suppose I should make an exception of Edmonton, which is really in the centre of a new northland which is going to develop. But I think Saskatchewan cities will have their place in the future, and that development has started.

I think we will witness in the next 25 years a growing self sufficiency on the part of the west. I think that is a corollary of what has been already indicated. We are ambitious, and we are developing the enterprise to make some of the things which have historically been sent out to the west, with high freight rates and a whole series of mark-ups for us to pay. I think you will find that more and more we are going to realize that we can manufacture things which we thought were too difficult to manufacture just a few years ago.

There are examples of that already. We have had established here in Regina a transformer plant.





It is a small plant, but it is able to compete successfully with some of the biggest companies in Canada, to the extent that it can practically take all the business, because of its efficiency and lower overheads. That sort of thing we think will continue.

On the other hand, I think we will experience an increase in the shipment of producer goods from the east. As our industry develops, our requirements for machine tools and so on will serve to replace for eastern Canada the losses they will experience in such things as garments, small metalwares and things like that. I do not think it will mean a loss to the east; I believe the nature of the trade will tend to change somewhat as we perhaps find it possible to build factories to supply the growing population, and the total trade with the east will not actually diminish.

I hope I am not taking too long, Mr. Chairman. Our future problems we do not see as very great. They are the past problems partly solved by the very cumulative process of industrial development. Most of our former problems were based on the fact that we had no industrial base upon which to grow. As we gain in industry I think those problems will progressively disappear.

In terms of policy and action and responsibility for our future growth I would like to make a few comments. I think basically the responsibility lies with the provincial government, the first and major responsibility. It is up to us



to work out policies which will attract industry; to set up organizations which will promote industry, and to continue to obtain the help of such corporations as the power corporations to supply electricity throughout the province wherever required, in whatever amounts required, at prices which are reasonable. The same thing applies to natural gas, in connection with which a policy has been put into effect in a very real way, in that the power corporation has undertaken to supply the necessary natural gas in some cases at cost, in order to attract industry.

The government also introduced in 1949 a programme of granting loans to industry to overcome the hiatus, to add to the know how we have here the necessary financial resources that are required to start a plant. That programme has been very successful. We hope the federal government will also continue to give the type of aid it has been giving through its industrial development bank.

The greatest help that can come, we feel, is in the support given to agriculture; because without a successful agricultural economy we can have no growth of industry.

There is another type of assistance we would like to see. When the north country starts to really open up we hope the federal government, or one or other of the railways, will see fit to construct the necessary railway lines into that area. We are completely dependent upon the railways in that area, and we hope a line will move in there as soon as real





projects are developed. Further assistance to us could be given in the realm of freight rates, in order to ensure that we get as fair a deal on freight rates, in terms of incoming raw materials and outgoing goods, as is experienced in eastern Canada. It is a very involved problem but we do suffer, not from the stated normal rates but from the very special commodity rates which make it easier for a manufacturer in eastern Canada to get his goods to market here.

Another great aid to industrial development would be the construction of the South Saskatchewan dam. I think in the statements which have been made by this government in demonstrating or attempting to demonstrate the impact on agriculture which would result from the construction of this dam perhaps we have failed to give a full measure of importance to the impact which it would have upon industry. Not only would it provide for a cheaper power, but from the very increase in population which would result in that area which would be serviced by the dam we would move into a position where more and more industry could come in, based entirely upon increased population. We feel that the indirect results from the construction of the dam could quite conceivably equal the direct results, the ones to which we very often limit our arguments.

In discussing these matters with the United States corps of engineers and others connected with the construction of the Garrison dam and the Fort Peck dam years ago, we found that the conception



there and the method used in the United States for determining the economic value of a project such as this differs markedly from the rather restricted considerations which we give to the economic feasibility of a project such as the South Saskatchewan dam. They take into consideration not only the direct benefits such as the increase in livestock production and the increase in crops, but they take the indirect benefits into consideration; the effect it will have upon industry, the stabilization of the economy of the surrounding area, and they do not exclude the income tax the federal government will receive as a result of this increased activity. They consider that, although indirect, a part of the total picture resulting from an irrigation, flood control and power project such as that. To industrial development it would mean a great thing, as well as to agriculture.

From the federal government we do not ask very much. We would like them, however, to consider the fact that every part of Canada has to be assisted to become more prosperous if all parts are to become more prosperous. I think the constitution of the international labour office very aptly put it, when they stated "Poverty anywhere is a danger to prosperity everywhere."

That is not quite applicable to Canada, but I think we can paraphrase it by saying that failure to take action to increase prosperity anywhere is a danger to the continuance of prosperity everywhere, and I think that applies in Canada, as I think there





is developing a much greater recognition of that fact. I believe that slowly but gradually Ontario and the central provinces are realizing that when the west is hit, it immediately has an impact on the east.

I believe we are also coming to realize in Canada that we should change our definition of national projects. A national project is not necessarily one which affects all of Canada. The St. Lawrence seaway does not affect all of Canada, but there are very few people who do not support it. It is the same with projects which can help one province. They become national projects, we might say, not when they are physically situated in more than one province, but when their results, direct or indirect, affect more than one province. So in that respect we feel that the South Saskatchewan dam does come under such a definition and should be considered a national project.

THE CHAIRMAN: Thank you, Mr. Black.

---Recess.

---After recess.

THE CHAIRMAN: Shall we come to order, gentlemen?

MR. BLAKENEY: We shall now, with your permission, refer to chapter 5, dealing with energy supply and demand. For that purpose we will be calling upon Mr. David Cass-Beggs, general manager of the Saskatchewan Power Corporation. Mr. Cass-Beggs was formerly a professor at the University of Toronto and the University of Wales, and recently assumed his



present position.

MR. CASS-BEGGS: Mr. Chief Commissioner and gentlemen, I do not propose to read chapter 5, but with your permission I will draw your attention to the important points I see in it.

Particularly we are discussing the energy resources of the province from the point of view of those which are physically usable at the present time or which may reasonably be used in the near future, and for that reason we are not going to consider solar energy or more remote forms of energy that may ultimately be available.

The energy resources that are available in the province are by no means insignificant. Starting with coal, we have available very large beds of lignite extending over the whole of the southern portion of the province, particularly the southeast corner, centering on Estevan. The lignite coal is of the value of the order of 7,000 B.T.U's per ton -- poor, of course, as a coal but relatively good as lignite; and it is mineable quite easily by strip methods. It is common to remove the order of 100 feet of overburden, and ratios of seam thickness to overburden of one-seventh are common and economic. The coal extends a good deal further to the west, although in general it is of lower quality and perhaps less easily recoverable.

In any estimates we are presenting of the energy available from coal resources, we are taking very conservative figures, not by any means





the total reserves available but the total that is easily mined, that would come within this category of strip mining.

Second, there are the oil fields, which of course have been dealt with, which in general lie in the western part of the province, particularly again in this area a little north of Estevan, the general area centering around Weyburn. Although of course the future possibilities of oil are anybody's guess, there is a notable lack of oil at the present time in the central portion of the province, where the major cities are located; for example, around Saskatoon, Regina and Moose Jaw there has been no significant discovery.

Natural gas associated with the oil, or in dry gas fields, has appeared and is of great significance. At the present time gas is taken from two or three fields in this area, a small field near Swift Current; and the reserves proved at present have been adequate for a pipe line to serve Saskatoon and Prince Albert, as shown in green on this map. There is a 10 inch line further south and a 14 inch line further north, both joining at Saskatoon and extended by a 10 inch line to the city of Prince Albert.

These lines are proportioned for considerable expansion in the gas load, and for extension in an easterly direction to the smaller centres, for a line to North Battleford, and of course to serve a large number of communities that



are closer to the lines themselves.

The hydroelectric resources of the province are not at present developed, in the southern part at any rate. A small development exists to serve the mines at Flin Flon, which is not visible on this map. It would be perhaps 12 inches above the top right corner. But a number of hydro sites are known, none of which perhaps are quite economic at the present time.

The site that has had most attention is this site on the Saskatchewan river east of Prince Albert. Surveys have been made of the resources of Fort a la Corne from time to time in the past. In each case they have been considered in relation to the problem of transmitting the power to the major load centres, and in each of the previous surveys which have included Regina, a transmission distance of 250 miles has been the main problem in considering the feasibility of the Fort a la Corne site.

As the provincial electrical loads grow, the output of these hydro sites becomes relatively less significant. It is easy to absorb the output more locally with smaller transmission costs; but they are gradually becoming economic. We forecast that sites in this part of the Saskatchewan river will come into use between 1960 and 1970, and altogether there are probably 500,000 kilowatts available in that region. I think just one has been given close attention so far.





There are factors which would influence the economic feasibility of these sites immediately, such as the development of pulp and paper activities in the vicinity. Based purely on the electrical load of the main portion of the province, they are still somewhat remote.

Smaller hydro sites exist elsewhere, particularly on the Churchill river. In this portion of the province there is probably a total which is at least equal to that available in the other section; but the distance adds another 200 miles further north, and the transmission costs are very considerable.

I have not included the potential of the South Saskatchewan scheme as any firm source of electric power in the estimates that are made here, because it is not an economic proposition considered as a power plant alone. The cost of the dam for the South Saskatchewan scheme would put it far outside any hydro activity that has ever been undertaken if it were considered purely for hydro purposes. If it is developed as an irrigation and general purpose scheme, then of course the hydro output is very significant, although again its significance is decreasing as the loads of the province increase.

For possible atomic energy, the province has very considerable resources of uranium, and as far as the raw material is concerned there should be no difficulty in developing atomic energy within the province.



Those are the main energy resources.

THE CHAIRMAN: Uranium would not be developed here directly, I suppose?

MR. CASS-BEGGS: No; I take it that at the present time the uranium ores would be shipped east for refining and the uranium metal would be shipped back. But it could be handled with no significant freight costs as far as returning it to the province is concerned. There would be a fairly good argument, I should think, for processing the uranium within the province in the future.

We have prepared an estimate of the total energy needs of the province, and that appears on page 119 in summary and in table V, i to iii in the appendix.

Perhaps at the moment the summary is what we should look at, and we have put it in British thermal units and billions of British thermal units. The present needs for energy, in 1955, appear to be about 150,000 billion British thermal units. It is difficult to picture that figure, and it is not very significant as to its absolute magnitude, but more in relation to future requirements. By 1965 to 1975, say by 1970, we estimate that that need will be doubled, and that by 1985 a factor of 4 will be involved.

We feel that these are conservative estimates. To multiply our present energy needs by a factor of 4 in 30 years is not a very extravagant expectation. Twice the population using twice as





much energy per head would be, I think, a very reasonable expectation, although the analysis of this is based upon a projection of the various factors that contribute to those energy requirements, which are shown in the table. If we also tabulate the known resources of energy in terms of coal, oil and natural gas, excluding for the moment hydro and atomic energy, we find that we have 52 million billion British thermal units available, a very large amount of coal and relatively insignificant amounts of oil and natural gas as known today.

These estimates are very conservative. On the basis of these estimates, however, we have a total of energy reserves five or six times the total depletion that we have estimated within the 30 years; and perhaps, taking a more favourable view, the coal resources could be increased ten times. That would obviously take us well into the middle or on to the end of the next century, even allowing for growth.

However, if we examine the depletion of these resources separately, we find that coal is perfectly adequate but that natural gas and oil are of course by no means adequate for the demands made upon them. That is, the reserves that we know today are by no means adequate. The yearly depletion of these resources, which is given on page 120, shows that the coal depletion will decrease. At the present time it is 2,000 billion British thermal units per annum, tapering off -- not very significantly, but definitely decreasing, while natural gas will greatly



increase, changing from 3,000 billion British thermal units today to 90,000 odd by 1985, while oil shows a significant increase, though not quite on that scale. Coal and oil are the most significant today. Oil becomes by far the most significant in 1985, with natural gas second and coal third in order of importance.

These figures, of course, are based on the assumption that the reserves will in fact be available. At that rate of depletion the oil that we know today would be exhausted by 1971 and the gas would be exhausted by 1974, and that presupposes that all the oil will be available for the needs of the province. Of course at the present time oil is exported from the province and in that sense would not be available.

When we examine the possible oil and gas reserves, taking estimates that are based on present rates of discovery, we find the picture is a good deal more favourable, and I will refer to that a little later.

We discuss these various reserves in a little more detail. I will not take too much time on those details, but I would draw your attention to the problems that are associated with the location of the lignite coal. Although the province has these enormous amounts of lignite coal available, the fact is that they are not used in any of the major cities. The distance which lignite coal can be transported in competition with coal from Alberta falls short of the major cities of the province.





On page 122 we indicate the real cost per ton of the coal, that is the cost of lignite and of Alberta sub-bituminous coal. These are for select coals of the type which would be used in power plants. You see that lignite might just be considered competitive in Regina on a B. T. U. content basis at about 29 to 30 cents per million B.T.U's, transported from Estevan to Regina by rail, as compared with 30 cents or just over for Alberta coal. However, the difference is not sufficient to lead to the lignite being used, and in other cases the position is distinctly less favourable. For example, for Saskatoon Alberta coal has a distinct advantage. Yorkton and Regina might possibly be reached by lignite.

On the other hand, if we generate electric power with the lignite close to the Estevan district, and then transmit the electric power, it does become possible to extend the energy much further north and west, and on page 123 we give a table indicating the balance of cost in favour of lignite if we generate power with it, and convert that into miles over which we may distribute the power on a basis of 1 mill per 100 miles of transmission.

That is a very rough and ready figure, but not very far from the fact for reasonable amounts of power. The last line would indicate that if we were in competition with Prince Albert fuel costs of oil and coal as now used in a plant, we could transmit power from Estevan 270 miles toward Prince Albert, but that would fall short of Prince Albert. We could



transmit it 240 miles toward Saskatoon, but again that would just fall short of Saskatoon, although we could easily pass Regina in the transmission of power from Estevan.

Of course there are other factors involved in the operation of a network linking the major cities, and a considerable part of the transmission costs in fact would be covered by other advantages. As a practical matter we would undoubtedly transmit power generated at Estevan as far as Saskatoon, and we could put the base load of the system there on lignite-produced energy from Estevan.

That raises the question of how much power we could generate in the Estevan area, and unfortunately we immediately encounter the limitation of cooling water that is available in the southeast portion of the province.

There is the Souris river which winds across the international boundary. It is a stream with insignificant flow. We believe that we can construct a reservoir on Long creek; that is, we believe we will be able to get permission to construct a reservoir, and the reservoir could provide for cooling water for a station possibly up to half a million kilowatts, certainly of the order of 300,000 kilowatts. But beyond a plant of about a half million kilowatts we do not at the moment see the possibility of using lignite in the Estevan area, because of this cooling water limitation.

There are, of course, possibilities of technological improvement that would cut down or even





remove the cooling water requirement, but these are not firm enough to take into account at the present time. Perhaps the most interesting possibility would be gasification of lignite so we could use air-cooled gas turbines in an otherwise conventional steam plant.

However, for the time being I think we must accept the limitation of about half a million kilowatts for that area.

Turning to the gas reserves, I think it would be of interest if I outlined the provincial plans for natural gas. We burn a certain amount of gas at the present time in the Saskatoon power plant. Generally speaking we expect to supply about a quarter of a million population within the province with natural gas, which would be used primarily for space heating in domestic homes, for commercial purposes and small industrial purposes. The quarter million would include all the cities of the province and all the major areas; in fact we would be down to a population level of the order of 1,000 for any centres that we might expect to supply, in order to complete that estimate. That quarter million is based upon the present day population. By the time the gas network was extended to provide for that population, of course it would be appreciably larger.

The basic policy the corporation is pursuing at the present time is to consider the province as a single unit for gas supply. We are required to break even in our operations, but we take the view that we must break even on the total operation, without



necessarily considering each individual section as being economic.

That enables us to consider a system which would be more extensive than has been tackled in any other part of this continent, and we anticipate making gas very widely available. We would also supply gas at uniform rates, having regard to the population size in any particular area, rather than at a price that is dictated by the distance the gas is transmitted.

In any estimates that are provided here for the use of natural gas we have made no inclusion of major individual industries that might be located simply because gas was available. We expect to have large amounts of gas available for industrial use, but have not attempted to forecast those developments.

On page 126 we summarize the gas requirements, projecting them to 1975, and estimate the desirable reserves if we were to allow for a 30 year operation of the systems as they would be at those dates. You will notice that the present reserve as of 1955, which is 425 thousand billion B. T. U's, is a comfortable 30 year provision for our present development, and it would certainly be reasonable to think it could be extended to cover the development of 1960 and probably 1965. A very moderate increase would cover those periods.

It remains to be seen what actually develops in connection with those reserves, but we do not think it is unreasonable to expect a factor of 3 or 4 to be applied to our presently proven reserves,





and that would adequately cover the needs we project for 1975. Based on purely geological surveys, a figure of 18 million billion B. T. U's has been advanced, some 40 times our presently known reserves, and of course that is far in excess of any requirements that we can foresee on a 30 year basis. This would indicate that great expansion of industry using natural gas is possible, and that we will be able to meet our needs for a period greatly in excess of 30 years.

Oil reserves are in a somewhat similar position. We anticipate that gas will supply all the domestic needs in our urban areas but that oil will be the primary fuel in the rural areas. The existence of the oil reserves, coupled with extension of farm electrification in the rural areas, makes it possible to envisage the use of oil furnaces on farms and to consider the farms as having heating provision as satisfactory as the urban homes would have with gas.

On page 129 a table is given similar to that for gas, estimating oil consumption, showing present reserves and also the possible ultimate oil reserves. The ultimate oil figure is given as several times the estimated 30 year requirement in 1975.

I believe I have discussed the hydro-electric reserves sufficiently in my introduction.

Atomic energy, I believe, necessarily comes into the picture in the period of about 1965 or 1970. You will notice in the table indicating the sources of energy that the electrical energy at present amounts to only about 8 per cent of the total provincial



needs, but that by 1975 it is likely to amount to 40 per cent.

In table V-3 we have totalled the residential, industrial, railway and motor vehicle requirements; and each of those items projected to 1985 shows a transition from the direct use of these energy resources to the use of electrical energy. Residential uses remain fairly static. Industrial uses change to some extent only, but the electrical energy amounts to 40 per cent of our total. That represents a very considerable increase in electrical requirements; and if we total the available energy from lignite coal, with the limitations discussed, and the amount it is reasonable to base on oil and natural gas, and bring in the available hydro, we still find that we have inadequate resources for electric power production. We do not mean that we would in fact cut off at that level, but we would have to move to more expensive power after about a 10 year period.

Atomic energy today is considered to be competitive with fairly expensive fuel. We in this province have fuel that is inexpensive, and initially would not be in a favourable position for developing atomic energy. However, we have considerable transmission distances to compete with, with the prospect of increasing power costs after about 10 years. It seems likely that the decrease in cost of atomic energy over the years, coupled with our increasing costs and the economies in transmission that





can be made by locating atomic energy plants nearer to the load centres, would lead to our adopting atomic energy some time around 1965, and we would then be in a position to develop a large atomic energy plant. It would be relatively insignificant in our total plant capacity; but multiplying the capacity of that plant, by 1975 we would have a fairly significant amount of atomic energy in use, and by 1985 some 75 per cent of our total electrical power would be from atomic energy, at which time 40 per cent of our total energy would be electrical, which gives us something like 30 per cent of the total energy requirements of the province which would have to be met by atomic energy at that date.

I think that represents quite a problem. It calls for a rather more rapid development of atomic energy than has been generally forecast, and I base it largely on the fact that we will not be able to meet these energy requirements from cheaper sources of power beyond about 1970 or 1975.

In conclusion I would like to emphasize the importance we in the province attach to an integrated use of the available energy resources. I think we have succeeded so far in achieving something of the correct balance of use of the available energy. We have power plants, for example, using natural gas, in this case the Swift Current oil and gas; in Kindersley, gas only, where gas is cheap. But in general the gas would not be used for other more important purposes. A certain amount of gas -- it



would not be correct to call it distress gas exactly, but gas for which we have no immediate need in the Kindersley area, can be used in that plant.

In the case of Estevan we obviously utilize lignite coal entirely. In the case of Prince Albert we utilize part oil and part coal. In Saskatoon we utilize the three resources, coal, oil and gas and proportion them according to the availability of water. At the present time the use of this gas is taking up the excess capacity of the pipe lines, which no doubt later will be devoted to industrial loads which would have a prior claim to the gas, compared with the power plants.

However, we feel that it is possible to adopt a power policy, an energy policy, that makes the most appropriate use of each resource; as I have already mentioned, using gas primarily in the urban domestic field, oil for transportation and domestic rural needs; using lignite coal, hydro and ultimately atomic energy primarily for electrical generation.

In the more distant future we see the possibility of shifting back to lignite reserves if it becomes possible to synthesize a gas substitute for natural gas based on coal, and possibly atomic energy for the energy of the synthesis. Research into those possibilities is not sufficiently advanced to make any estimate, but the fact that the province boasts that basic carbon resource leads us to feel that the synthetic hydrocarbon can be substituted at a later date for the natural gases when they are





depleted, and that the lignite coal, coupled with atomic energy, will move into a position of primary significance in later years. Atomic energy will probably handle most of the electrical needs. Lignite might be the raw material from which synthetic fuels would be developed to take the place of gas and oil.

As a province we have an extremely rapid rate of growth in electrical energy at the present time. The growth of our electrical needs is approximately 20 per cent per annum and our immediate problem is that of doubling our electrical capacity in 4 years. As far as we can see it is likely to double again in the following 4 or 5 years, and even then it will not be up to the per capita levels of eastern Canada, so there would in fact be ample room for it to double again in the succeeding 7 or 8 years.

The figures we forecast, although they may seem very large, have to be pictured as showing the growth of the province from a backward stage in the electrical field to something that is still short of contemporary consumption in eastern Canada; and within that level there is still scope for a factor of 10 to 1 in the kind of growth we anticipate and which we hope to meet from the available resources.

I think it would be fair to say that energy resources are not the primary problem as far as the province is concerned; that its reserves will cover our requirements as far ahead as we can reasonably look, certainly into the middle of the next century and probably without great effort.



In putting forward these suggestions I have been looking only at the province of Saskatchewan. There are obvious arguments for energy pools that would cross provincial boundaries. There are possibilities of exporting electrical energy, based on lignite, into Manitoba, and importing electrical energy, based on hydro, from Manitoba. There are possibilities of a link of electrical energy as between Alberta and Saskatchewan. Coal in Alberta is virtually as cheap as coal in Estevan, and there seems to be little reason why we should not obtain the electrical energy across the Alberta border and possibly export electrical energy across the Manitoba border. There are some possibilities of an interchange of power with the United States. They have not been mentioned in the brief, but they are of some significance; the export of electrical energy from Estevan south, and an importation into the western part from the Fort Peck area.

These possibilities, while I think they are outside the scope of a purely provincial brief, do concern the commission in its examination of the economy of Canada as a whole.

THE CHAIRMAN: Thank you very much.

MR. GRAUER: Just a few points of information. In the sale of natural gas I was not quite clear. Are large industrial plants excluded from Saskatchewan natural gas? Is that the idea?

MR. CASS-BEGGS: No, they are only excluded from my estimates of probable sales. We





have sized the pipe lines to provide for very considerable capacity, and we are in a position to offer rates for industrial use that are very favourable.

The difficulty in projecting such industrial loads is that they are very largely guess work at the present time, and we have tried to make assessments that are firmer than those.

MR. GRAUER: The Trans-Canada line presumably would serve areas it went through, and there is enough natural gas in Saskatchewan to serve the rest of the area. Is that the idea?

MR. CASS-BEGGS: Thank you for raising the question of the Trans-Canada line; I should have mentioned it. Our present expectation, based on Trans-Canada, is that the southern cities of Swift Current and Regina, and possibly Weyburn and Yorkton, could be based on gas taken from the Trans-Canada line; and our present understanding of the company is that we can use 50 per cent Saskatchewan gas and 50 per cent Alberta gas in serving these loads. The gas would be taken into the Trans-Canada line at the western end.

Of course if gas develops in this area it would be more advantageous, but we anticipate that 50 per cent of the southern Saskatchewan loads will be using Saskatchewan gas. We would in fact be in a position to supply 100 per cent of the Saskatchewan loads if the Trans-Canada Corporation were agreeable to that. The contracts that are now envisaged would possibly leave open the possibility of negotiating that change,



If the Trans-Canada line is not developed, we have economic studies which show that we could ourselves transmit gas from the fields in this part of the province to serve Moose Jaw and Regina without difficulty.

MR. GRAUER: In the apportionment of sources of energy, or kinds of energy, to different areas, particularly for instance the gas in the urban areas and the oil in the rural areas, which I believe is the idea, would that apportionment be based upon legislation? Is that the modus operandi; or is price going to be depended upon to achieve some sort of apportionment?

MR. CASS-BEGGS: Yes, it is primarily a matter of price. At the present time we sell gas in Saskatoon at a price that is about 30 per cent cheaper than the cheapest alternative fuel, so we have had a very large number sign up for gas service. There are about 10,000 services in Saskatoon. That is not saturation for a city of that size, but it is very close to it.

We anticipate having virtually 100 per cent gas services in newer areas, that is newly built areas, and certainly an 85 per cent sign-up in the older areas. The displacement of oil and coal is, as you say, a matter of price.

The use of oil on the farm is, I think, dependent on the rural electrification. This map shows in the background the whole system of transmission lines, and all these smaller areas which are more or less





shaded on the map represent those areas in which farm electrification is complete. At the present time that extends to about 32,000 farms out of possibly a total of 80,000. By the end of this coming year's construction programme we estimate that 40,000 farms will be connected. All those farms could use oil, and I believe a considerable proportion of electrified farms will do so.

MR. GRAUER: What about liquid petroleum gases? Have they had any development in the rural areas?

MR. CASS-BEGGS: They are used fairly extensively, but I think mainly for cooking purposes. I am not familiar with many examples of space heating using liquid petroleum.

MR. GRAUER: You anticipate that oil will be the dominant factor?

MR. CASS-BEGGS: Yes. I feel it would undersell liquid petroleum.

MR. GRAUER: I suppose the most interesting thing from our point of view is that you anticipate no problems in the next 25 years that cannot be solved within Saskatchewan. That is right, is it not?

MR. CASS-BEGGS: Yes. I do not want to be too encouraging in that respect, but the problems are those of integration rather than the fundamental resources, and the solution of those problems is in sight. Atomic energy is fundamental, in our thinking, but I would say that atomic energy has passed beyond the stage of being just a probability, and I think we can say it is a certainty within the period within which we would need it.



THE CHAIRMAN: Thank you very much,  
Mr. Cass-Beggs.

MR. BLAKENEY: Mr. Chief Commissioner and commissioners, the next chapter, chapter 7, deals with population growth and distribution, and I call upon Professor Baker of the University of Saskatchewan, chairman of the provincial royal commission on agriculture and rural life.

THE CHAIRMAN: Well, Professor Baker, we will be looking forward to reading the reports which you will be preparing in another capacity.

MR. BAKER: Thank you very much. I am not sure whether I come before you as director of the school of agriculture at the university or chairman of the royal commission on agriculture and rural life.

THE CHAIRMAN: We will take you in both capacities.

MR. BAKER: We have heard about commissions being appointed to investigate the appointment of commissions, but I do not know of a case where the chairman of a commission which has been spending considerable time on economic affairs presenting evidence to a commission on economic affairs.

However, it is my privilege -- and I want to do it briefly -- to say a word to you this afternoon about population growth and distribution. A great deal of what I want to say has been said to you at various times during the day, and perhaps I can shorten my comments very considerably.

I do want to say by way of preface, however,





that population speculation, as some one said this morning, is of course highly speculative, and I think it is worthy of this type of comment. We have so very little statistical information that gives us the kind of insight we need into the relation between demographic, social and economic development, and I suspect the comment can be extended to the general field of population statistics and agricultural statistics. I sincerely hope that in your deliberations you will ponder upon the great need we have for more reliable and extensive statistics in relation to agriculture and population, particularly if we are going to be able to make reliable estimates of economic and social growth in future.

I want to perhaps also preface my remarks by saying something about the historic setting of this area we have been talking about during the day. I think this is important, because a good many of the things that are happening to our population, as well as to many of the other economic and social aspects, I think can be understood only against that history.

Some reference was made this morning to the fact that we settled this area in the very early days of the horsepower economy, and we established quite a pattern of quarter and half section farms, with interspersed company lands.

This gives us the agricultural pattern. The homestead act also required settlers to live on their farms in the early days, and this also gave us another rather important pattern; that was the isolated



residence pattern we have in Saskatchewan, and which is characteristic of this whole great plains area.

I think it is important to point this out, because it gives us one of the most expensive residence patterns you could possibly dream up; that is, from the standpoint of public services. If you were to put our farm homes in the middle of each quarter section you could not improve very much on the pattern we have at the present time.

This means that roads and electric power, and schools particularly, involve very heavy public costs. As I will indicate in a moment, this pattern has changed drastically, but this has increased the cost of the residence pattern.

When we opened up this country we also established towns at regular intervals of 6 to 7 miles. Again this was well adapted to the early settlement pattern; but again we find that under present circumstances the trading pattern in Saskatchewan is undergoing a rather drastic change.

I refer to this early period because at that time we established three patterns which are now in the process of changing. Later on, of course, we had the development of the resources of the area. Then much more recently, as recently as the last decade or two, mechanization came into the picture, and that also began to change that early pattern rather drastically.

This is by way of preface. When we talk about population growth in Saskatchewan, we find that first of all we had an expanding population in the





period from 1900 to 1936, although expanding at a declining rate after 1911. Then from 1936 to 1946 we had a very heavy out-migration of population; from 1946 to 1951 we began to just slow down the decline of population, and in the last few years we have turned that slow-up into an increase. These in general are the main characteristics of the growth of our population thus far.

The population of the province in 1955, according to the dominion bureau of statistics, was about 889,000. When we come to speculate about the future population of the province, of course we have to look at natural increase and migration; and you know the picture there, I think. The very sharp rise in the natural increase in the last few years, reaching a high of 21 per 1,000 resulted from a higher birth rate and a lower death rate, and I think we can expect the natural increase to continue to go up in the immediate future. We may have a decline when the population born in the depression years comes into the picture, but when those born during the present high birth rate begin to marry, we will again see an upsurge in the birth rate.

Migration, of course, is much more difficult to estimate, because this depends a great deal upon what happens elsewhere, particularly in the agricultural segment of the province. If we assume that we will retain our natural increase from here on in, and that we will not have significant immigration -- I might just suggest that at the present



time we probably retain about 80 per cent of our natural increase, and this might be expected to continue. If we take this assumption, that our population has been growing at about 2 to 8 per cent per year for the last five years, and if you project this into the future, we can predict a population in 1961 of about 996,433.

This, of course, is a very conservative estimate, and any significant increase in the industrial development of the province can change that rather drastically. Any significant change in the continued mechanization of our agricultural areas will change it rather drastically. If we run into a recession we will get the characteristic backlog of workers on the farm, and the migration from the rural to the urban areas will not occur, and particularly the out-migration to Ontario and British Columbia will not occur.

A word might be said also about the difficulty of predicting the secondary and tertiary effects, particularly, of industrial development. Some estimate has been made about the possible increase in population that may come with the industrial development that we can now anticipate, but I think the really difficult prediction is when we attempt to estimate the secondary effects; that is, the development of services and the tertiary effects, the results of the increased incomes in the period as a whole. As a result this estimate, which is very conservative, could be away out in the not too distant





future, if the industrial development takes place.

Perhaps by way of comment on population growth I should say just a word about age and sex distribution. I think all we need mention is that Saskatchewan has been characterized by an increasing proportion of people in the dependent age groups, that is the old age and the young age. The proportion of the population over 65 years of age has increased until this year it amounts to 8.4 per cent of the entire population. This is somewhat larger than the figure for Canada as a whole. The proportion of children in the age group under 14 years declined until 1951, when an increase became evident. That proportion has now increased to 32 per cent this year, and there is no indication that this proportion will drop over the long term.

Sex ratios of course are important, and the sex ratio in the country, that is the number of men as compared to the number of women, is rather low. I think this makes a significant contribution to our teacher shortage.

Just a word about rural-urban population distribution, and of course this is the really significant change that is taking place in our Saskatchewan population. Actually, since the very early days the proportion of the total population made up by the farm population has been declining, but this decline has been particularly sharp since the thirties. Then with the great acceleration in mechanization from 1941 to 1946, a rather precipitous decline was



noted. Of course the decline first started in the prairie area because it was first mechanized. Later it spread out into the area of smaller farms and mixed farming.

I should indicate that the shifting population, in my opinion at least, has been a factor of very positive significance for agriculture in Saskatchewan, because it reflects a better adjustment. It has meant quite definitely that those who remain on the farms and have been able to adjust to mechanization, are able to realize a higher income per farm and per family, which has been a necessary adjustment; necessary both in view of our present farm practices and the nature of our soil resources, and necessary as well in view of the deficiencies introduced into agriculture by the progress of mechanization. So I think we must say that the adjustment of the farm population is not necessarily an undesirable adjustment.

I think we should say also that it is by no means complete. We still have some 50 per cent of the farms, or did have in 1951, in quarter and half section units. I think it is generally admitted that under our present circumstances, and in the absence of extremely excellent management, quarter and half section farms are going to have more difficulty in surviving, particularly if the cost-squeeze referred to this morning persists. So I think we must anticipate a further decline in the farm population.

That must be qualified in a number of ways. Again, if we come into a recession, as we have to a certain extent in the last few years, we know the





mechanization process stops very quickly. In other words the \$75 million we invest annually in new equipment does not go to the east. Therefore it will stop to the extent of the farm income decline. It will also be affected by some of the other programmes mentioned this morning; the extent to which we can open up new land; irrigated acreages; the development of what we call at present sub-marginal lands, and so on. It will be affected by the population growth in Canada in general and by the continued expansion of the Canadian economy, which will increase the demand for livestock products and require us to make much more intensive use of our land resources than we have made up to the present time.

So we must say that whilst the farm population has been declining, and if present adjustments continue it will continue to decline, there are a number of qualifications which may drastically change that downward adjustment.

When we come to talk about the urban population, of course, we get some of the converse of the changes taking place in our rural areas. Certainly the very heavy transfer of rural population to urban centres and of urban population to industrialized centres in Ontario and British Columbia has been an important characteristic of this rural migration. Obviously a shift to urban centres reflects increased industrial opportunities and increased service opportunities. When you mechanize farm production,



as we have done in the last few years, you create a tremendous service need, and this in itself generates urban population increase. So we find that all our incorporated centres in Saskatchewan have population increases that are going up fairly rapidly, while in general the population of our unincorporated centres is going down as farm population goes down.

Let me say just a word as well about the significance of rural population density, which was referred to by somebody else. The population density in this area is less than 2 persons per square mile. That is the area I am indicating on the map. In this other area I am indicating the density is from 2 to 4, I believe, and up here where I am pointing we get into a density of 4 to 6 plus persons per square mile.

When we get these very sharp declines in farm population, as high as 50 per cent in some of the areas, you can see what this begins to do to the residence pattern and to the other characteristics that we have seen established, such as neighbourhood social organizations, including country schools. When you have this very sharp decline in population this whole pattern is quickly challenged. While in the city there seems to be an accelerating effect in the building up of the population, in the country we appear to have a decelerating effect, and a decline in population. If you look at the charts on page 118 you get a picture of how significant this adjustment has become. You will notice the township in the prairie region, where 60 per cent of the original farmsteads were abandoned.





If you have 60 per cent of the original farms abandoned, I think you see what this does to roads, in terms of original investment, and the closing down of country schools. We are just at the beginning in Saskatchewan of the intensive closing down of one-room country schools. We know that, because the process is further advanced to the south, in the great plains area, and this is going to mean very intensive reorganization, with the moving of our school facilities and all the capital adjustments this involves.

It also means that we must plan a new road system in this province. The mechanization of agriculture has created a tremendous need for new road systems, and we will have to plan this with some knowledge of the possible future adjustment of this rural population. This creates some rather difficult problems for the province as a whole.

Now just a word about occupational distribution. I think perhaps I need do no more than merely mention this, because the shifts which are taking place will be obvious to you. The characteristic I do want to mention is that Saskatchewan is noted for the very high percentage of self-employed persons, and of course this reflects the agricultural nature of the economy, and the small businesses that are operated. This, I anticipate, is a rather critical factor when we think about the implications of economic declines and their possible consequences.

Finally, just a word about the educational needs of this population of ours. You will see that here again we have the problem of attempting to provide



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facilities for modern standards of education for a highly mobile population. We have great problems, particularly in providing vocational training facilities for a rural population a large part of which will probably end up in the urban centres.

This is a problem which will continue to cause great difficulties, because it means that our rural population is at a very serious disadvantage as compared to the urban population, in terms of access to educational facilities.

I think, sir, that is all I need say.

THE CHAIRMAN: Thank you very much, Professor Baker. I expect there are all kinds of questions we would like to put to you, which would keep you here for some time, but we will read your reports and I expect they will explain a good many things that will occur to us.

MR. STEWART: The changes which you have been describing in population density, the farm settlement system, and so on, would suggest some significant changes in the structure of rural organization. What adaptations have been made in that area?

MR. BAKER: The first rather significant adaptation, I think, is the change I mentioned in the trading centres. In our commission work we did a study on a community here and there, attempting to find the trading patterns. It is fairly obvious that the farmer is beginning to patronize larger trading centres, Shaunavon, for example, and that



This larger trading population is beginning to make possible the development of specialized services such as beauty parlours, jewellery stores and so on.

In the second place, from what was the trading centre the farmer is now going to what might be called a convenience centre. If you follow that through, it means that in many ways community associations are shifting as well, and I think we are moving from the older neighbourhood centre, the village centre, to a larger type of centre; the automobile type community.

Of course this has brought about many problems of reorganization as far as local activities are concerned. It affects our credit unions and our co-operative stores.

Does that come anywhere near answering the question?

MR. STEWART: What change would you anticipate in local government organization?

MR. BAKER: The commission is studying this question in considerable detail, and there seems to be no doubt whatever that we must move in the direction of local administrative units better adapted to the new area of association, in other words to the larger trading centre.

This is not based just on the fact that we do have these new areas of association. It is based also on the fact that in the case of a municipal government, the cost of modern, all weather road development is much higher, the technical requirements





are much different, the administrative requirements are much different; and it seems evident that if we are to preserve local self government in Saskatchewan we must so adjust it that it will be more adaptable to the modern demands made upon it. We have done that in connection with our health units and our school units, and this is a necessary consequence of the changes which are taking place in the province.

MR. LUSSIER: It is too late to change the set-up of your farms? I notice that it is based on the square mile. In the east we have a different set-up, and in the same area we can have 6 or 7 families along the same road. Here you have just one family.

MR. BAKER: When I pray over Quebec at night, I envy you for the very neat, economical pattern you have there.

MR. LUSSIER: You should pray over it in the day time, too.

MR. BAKER: You will see the difficulties we would have in trying to move farmsteads out to all weather roads. It would make possible great economies if it were feasible.

MR. GUSHUE: How has the availability of school transportation affected the school pattern?

MR. BAKER: By the establishment of centralized schools and the establishment of bus routes.

MR. GUSHUE: Is it free transportation?

MR. BAKER: Yes. I think we have some 8,000 miles of bus routes in the province today. This



is just a beginning, and of course it increases the need for improved road systems.

MR. GRAUER: Is there any decline in farm population because of the tendency to group the smaller farms into larger units? Or is there any indication of a trend, particularly near centres of population, toward much smaller farms but much more intensively cultivated; vegetables, poultry products, berries and that sort of thing?

MR. BAKER: I am not sure of this estimate, but I think we have about 2,000 sort of small market gardens out of 112,000 farms. It is in that order.

I might mention one thing which is very important in regard to the suggestion someone made this morning about the need for some way of injecting capital into agriculture in Saskatchewan. A characteristic of the adjustments taking place in farm size is that quarter and half section units just do not tend to become section and section and a half units. They disappear as such, to reappear in larger units.

This makes an even more rapid shift in the residence patten, so we have to find some way of making this transition more gradual, to avoid excessive concentrations of land holdings.

THE CHAIRMAN: Thank you very much.

MR. BLAKENEY: The final two chapters of our brief deal with capital requirements. To deal with the question of productivity and capital investment





I will call Mr. Bert Sufrin, an economist with the provincial economic and advisory planning board. I suggest that questions might be deferred in this case until after we complete chapter 9, if that is agreeable.

THE CHAIRMAN: Certainly.

MR. SUFRIN: Mr. Chairman and gentlemen, you will notice that the discussion on productivity, which appears in the first part of chapter 8, makes no attempt to measure the productivity of the non-agricultural industries of the province.

One reason for this is the fact that there simply has not been time to obtain the necessary data in order to make comparisons of a meaningful nature between particular industries on a provincial basis. The more important reason is the fact, as already pointed out today, that agriculture is still the dominant industry in Saskatchewan; and one of the major underlying economic forces at work in the province today stems from the study of the productivity of agriculture as compared to the rest of the economy.

You will have also noted that in this submission, productivity and capital requirements are dealt with together. The reason for this is that no attempt has been made here to predict what productivity in agriculture is going to be in the future, but rather we have tried to point out what are the present problems, some of the implied consequences which arise under this general heading. I shall attempt to summarize these points as briefly as possible.



If we examine the relative earning power of labour in agriculture as against all other industries, we see clear evidence of the principal problems affecting the Saskatchewan economy; a persistent and obvious differential between farm and non-farm income. A comparison of these income categories has been made in the table appearing on page 196 of the submission, following which it is pointed out:

"Even during the most favourable period of 1942 to 1953, a period of sustained agricultural prosperity, the average Saskatchewan per capita farm income in constant dollars was only 68.4 per cent of the non-farm average."

The reason for this disparity is simply this, and I quote from page 198 of the brief:

"Primarily the explanation is that of low income elasticity of demand for farm products, and particularly for food. As population grows, the demand for food probably grows proportionately, but as income grows, a higher proportion is spent on services and non-agricultural products. The result is that a decline has occurred in the labour resources devoted to agriculture, and there has been a substitution of land and capital for labour. The root of the problem is that, given the present level of demand for agricultural products, the substitution has not proceeded at a sufficient rate to maintain parity





between the productivities in the two sectors."

And this, it will be noted, refers to the value concept of productivity, not the physical measure of output of labour. In fact if that latter comparison could be made it would be found, I think, that agriculture has advanced far more rapidly than has non-agricultural industry.

Probably the most decisive way of attacking this problem of income disparity is to attempt to eliminate the sub-marginal farm units which exist in the province. An estimate has been attempted of the cost of doing so, to the extent of having a minimum income standard, of which two are suggested; one a standard of \$1,500 per farm per annum and the other \$2,000 per farm per annum. In addition an estimate has been made of the displacement of rural population which would result.

Section 2 of this chapter considers the time and the scale of the industrial, non-agricultural growth which would be necessary to do two things; maintain roughly the rate of growth of population which has occurred during the last two years in Saskatchewan, and at the same time absorb the expected future movement of persons from farm to city. It may be asked why there should be urgency attached to the need to expand industry even beyond a level which would take care of a declining rural population. The answer, I think, lies in the following reasons. First, the resources are obviously there and are worth developing; and I think it is generally recognized that nothing suits our



type of economy, the free enterprise economy, as much as the mere fact of growth. Stability seems to be a condition enjoyed generally by economies which are at or near the subsistence level. The alternative generally seems to be between expansion and decline.

Second, there are many services which must be provided on an extensive scale regardless of population density, such as roads, schools, health services and so on, and the burden of whose cost is consequently spread more widely as the population grows. Third, it is essential to provide a more diversified economy in order to provide a more suitable one; and I think the importance of this reason has been plainly illustrated during the past year.

To achieve these objectives it boils down to this, the finding each year of jobs for some 7,000 persons. We have suggested in the submission that initially it would only be necessary to employ approximately 2,000 persons in basic industry, for example in manufacturing of any kind, and the remainder would follow, because of the multiplication of the initial investment. At a ratio of \$300 to one, which is what it works out to, this may seem to be a high multiplier. Possibly it is; but the kind of industrial developments which have occurred recently and are likely to continue for some time ahead, suggest otherwise.

The question which follows logically, of course, is how feasible is this objective. Consideration of four sectors, manufacturing, housing construction,





power and mining, suggests that it is not unlikely that it can be achieved, and I quote from the submission:

"In these four sectors alone it is not unlikely that an average annual increase in employment can be achieved of 4,455 persons. It is perhaps not too optimistic, then, to consider that the province of Saskatchewan can not only encompass a major reorganization of its agricultural industry to achieve higher levels of productivity, but at the same time sustain an overall increase in its population on the scale which has prevailed during the past few years."

The investment suggested as necessary to provide the initial stimulus is of the order of \$43 million each year. This, however, is only a part of the total investment which actually would be required. There is the investment in agriculture which is necessary in addition to that cited. Other fields of investment include housing, utilities of the whole area, and secondary industries which are expected to provide the additional employment consequent upon investment in the more primary industries. These requirements have not been estimated.

I would like at this time to table the report of the royal commission on agriculture entitled



"Agricultural credit" which sheds some light on the very important problem which arises in connection with the investment needs in agriculture.

THE CHAIRMAN: Thank you. You are tabling that particular report of the royal commission on agriculture. I think it might be referred to in your remarks, and then we will hope to get copies of all the reports and put them in together.

MR. FINES: I am sure we will be very glad to make available to you the various reports of the royal commission on agriculture and rural life.

I do not intend to take very long, in view of the lateness of the hour. I think most of the problems have been discussed.

I was very interested, however, in the final shot directed toward Mr. Cass-Beggs by Mr. Grauer, when he said, "You have no problems for the next 25 years." There may be no problems as far as Mr. Cass-Beggs and his department are concerned in trying to lay plans for all this development, but there may be problems in other directions, about which I shall speak later on.

The subject with which I deal is that of social capital requirements. I think the brief speaks for itself. It is needless for me to say anything to this group about the vast amounts which are going to be required for education in the next few years. I think in every province you have had the same story, of how the new crop of babies are growing up and how the school population is rising. That situation exists





here, too.

As to hospitals, you might recall that in Saskatchewan we went through a period of depression from approximately 1930 until well into the war, say 1941. Then we had the war years, with building materials unavailable until about 1945. So there was a period of about 15 or 16 years when no hospitals were constructed.

We have had to overcome that backlog; and while we have caught up, yet many of the buildings are now getting worn out and need to be replaced. Consequently that is going to take a great deal of money.

In the field of social welfare, projects are under way for the care of the aged people. One must remember, too, that the length of life is gradually being extended through medical science; and while that may be a great blessing to mankind, yet for a provincial treasurer it does create problems, including the problem of trying to find places for these people to live who are unable to care for themselves.

Mr. Baker has told you some of the problems facing our rural areas in connection with the roads. We have a big problem there, not only in the rural areas but also in the development of our highway system generally. You know, science makes wonderful progress. Every year they come out with new and bigger and better automobiles, with higher speeds, more horsepower and so on, all of which means that with more and more cars coming on the roads we must have improved highway facilities. Frankly our problem here is one of the most serious problems facing us today.



As you probably have heard, Saskatchewan has a large mileage of roads. Out of every 8 miles of surveyed roads in Canada, we have 3 miles right here in Saskatchewan. We have 37 per cent of all the surveyed roads in Canada right here in this province; yet our population is not 37 per cent but roughly 7 per cent of the population of Canada. So it is a burden on us that becomes very great.

Then, too, there are other investments that must be made in the next few years in the way of public buildings, the provision of utilities for our municipalities and so on. These things add up, as you will see in the brief, to a total of \$175 million for the provincial government and \$148 million for the municipalities.

I do not think you can separate the subject matter that Mr. Sufrin has just spoken about. I do not think we can separate what Mr. Cass-Beggs has talked about, because after all the implications of the capital requirements for these other matters are exactly the same as those for social requirements. For instance, for the development of natural resources, which Mr. Brockelbank discussed this morning, many millions of dollars will be required. For the agricultural developments of which Mr. Nollett spoke, further millions of dollars will be needed. The power developments that Mr. Cass-Beggs spoke of will cost an estimated \$150 million in the next 5 years. It is estimated that our telephone system will cost \$53 million, with the new microwave system which is coming





in next year, and with the new central dialling system and all these developments of science, and with the tremendous increase in the number of customers. So if you take all these projected expenditures you reach a total of \$414 million which the province will be required to raise in the next 5 years.

I would like you to think of the implications of that. It will soon be 12 years since I started to look after the finances of the province. The first year we had a total budget of about \$40 million. That was the revenue budget. There was no capital budget; nothing was required in the way of capital. The amount required for power they had to make themselves, out of their profits. The amount required for telephones, they provided from their profits. No capital was provided.

Saskatchewan went through a period from 1932 on when we could not borrow a single dollar on the open market. The only money we could borrow from 1932 to 1946 was when we would go to the investment dealers and they would arrange to take our hat in their hand and go along with us to the various insurance companies. They would say, "Saskatchewan has an issue of \$3 million coming out in a couple of months. You people hold \$300,000 worth of those bonds. We would like you to take some new bonds, and Saskatchewan is not in a position to pay them off."

Of course the people would have no alternative, because they probably had a couple of million in other issues, and they did not want the province to go into default. So they would say,



"Of course, we will be glad to exchange them."

That went on into 1946.

We have been improving the situation through a number of factors. First of all we have tackled this question of trying to get rid of much of this dead weight debt. We have succeeded in doing that. In 1944 we had the second highest debt of all the provinces of Canada. Today we have the third lowest debt of any province of Canada. We set about a deliberate plan to try to get rid of this debt. We have done things that probably some of the other provinces have not done; and here I must point out that it is very, very difficult to separate your capital requirements from your regular revenue requirements; the two things are so closely linked together.

In all the other provinces of Canada, for instance, they take their liquor revenues as part of their revenue budget. We have not been doing that. We have been keeping our liquor revenues separately and using them for our capital purposes, with the result that we have not had to borrow for this dead weight debt for several years. However, I am sorry that day is over, because our revenue budget has been increasing at such a pace it has been impossible for us to use these liquor profits for capital purposes only this year, and we have had to go out and borrow for dead weight purposes.

I was told two years ago by the investment dealers that Saskatchewan could not hope to borrow more





than \$20 million in any one year, that this would be the limit that it would be safe to go to the market for; that if we went to try to borrow more it would create a state of indigestion in the market and our bonds could not be sold.

This year we have gone to the market three times and have raised \$10 million each time, although I must confess that we were very fortunate in our timing of the last issue. We got in before the market got too bad, with the result that our bonds, after hanging around for probably a month longer than they should have, were finally sold, after the price was reduced.

But now what of the future? We have borrowed \$30 million this year, and we have had a difficult time. How are we going to raise \$80 million a year? That is the problem we are facing today. I have here the proposed budget for next year, which has just been submitted to me; and while we have not quite got to the \$80 million, we are getting close to it. Yet I am confident that the limit in Canada today as far as we are concerned is the \$30 million we borrowed this year. I am sure we could not borrow another \$10 million without doing a great deal to destroy our growth.

There is one alternative, and that is go to the United States to borrow. That may be what we shall have to do. I think it is regrettable that it should be necessary to do that.

I am going to make the suggestion today that you people give serious consideration to the question



of the federal government providing a great deal more assistance for these things which are so costly. In the United States highways are paid for in part by the federal authorities. I would suggest that you study the system followed there, with a view to making a recommendation that our government do the same thing, or something better.

Then, too, may I refer to a suggestion made by the premier at the recent dominion-provincial conference. When we were in Ottawa the premier suggested that there should be legislation similar in principle to the Municipal Improvements Assistance Act, to provide for loans to provincial governments for jointly-approved federal-provincial development projects. If that were done the dominion government, with its ability to raise money cheaply -- and we know they have given us examples year after year of their ability to raise vast sums -- could make this money available to us. In other words, by putting the whole of the resources of Canada behind these loans we could probably get the amount of capital which is required.

May I also point out that while we are going to have a great deal of difficulty in raising anything like the amount of money we need, our municipalities are going to be in a similar position. Their social requirements alone are estimated for the next 5 years at \$148 million, or roughly \$30 million a year. Many of our municipalities are having great difficulty in getting money now. This question was raised at the recent dominion-provincial conference.





We were asked by the dominion authorities to give concrete examples and they would be very interested in discussing this matter. What we did ask for was a revival of the old Municipal Improvements Assistance Act, to make available to the municipalities at very low rates of interest the money for these self-liquidating projects.

I noticed a press report this morning to the effect that you people had said the dominion would not look with favour upon making money available to municipalities, because they are the creatures of the provinces and are responsible to the provinces. I would agree that they are responsible to the provinces, but may I say the dominion government has already shown a great deal of interest in that matter. At a preparatory conference of federal officials with our officials, they said this was one field where they might be able to do something to help, and I would hope you would take another good look at that question.

After all, our municipalities today are running into some pretty serious problems. I think Premier Frost of Ontario put it so well when he said it is the price we have to pay for development. Development is going ahead so fast that we are suffering. That is the position we are in today. Development is going ahead so fast that it makes it difficult. One would naturally think that in times of development things would be easy, but it does not work out that way. In times of development the problems of government become greater.



Now, Mr. Chairman, there is a great deal I could add to this, but I notice that the hour is now after 5.30, and I think that is the time by which you said you would try to be finished. Again I want to say how delighted the government of Saskatchewan is to have had this opportunity of presenting these various briefs and points of view today. We feel that a great deal of good can come from it, and we welcome this opportunity of presenting these various matters to you.

THE CHAIRMAN: Thank you very much, Mr. Fines. We want to thank your government and everybody who has worked on this brief and on the various studies that went on behind the scenes in preparing it. It will be of a great deal of assistance to us undoubtedly.

In just about your last sentence I think you said that the problems of government were difficult, to put it mildly, in periods of development. I suppose the problems of government are always difficult. I should think they would be even more difficult if we were not in a period of development.

MR. FINES: Shall I say that the problems of a provincial treasurer are difficult, then.

THE CHAIRMAN: I think perhaps we should adjourn now until tomorrow morning, when we will meet again at 10 o'clock.

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---At 5.40 p. m. the commission  
adjourned.

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ROYAL COMMISSION  
ON  
CANADA'S ECONOMIC PROSPECTS

HEARINGS

HELD AT

REGINA, SASKATCHEWAN

November 18, 1955

Volume 8



Friday, November 18, 1955

The commission resumed at 10 a. m.

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Appearances:

Mayor L. H. Hammond;

Mr. G. M. Gillis, city commissioner;

for the city of Regina

Mr. L. B. Thomson;

Mr. Olaf Turnbull;

for the Saskatchewan Farmers'  
Union

Mr. J. H. Wesson;

Mr. Alex Cameron;

for the Saskatchewan Wheat Pool

Mr. M. A. MacPherson, Q. C., counsel;

Mr. W. B. Tufts, president;

Mr. G. O'Shaughnessy, secretary-treasurer;

for the Saskatchewan Rivers  
Development Association

Mr. R. T. Henderson,

for the Saskatchewan Federation  
of Labour

Mr. I. E. Moore,

for the Saskatchewan Provincial  
Federation of Labour

Mr. Alex Aitken,

for the Regina Chamber of  
Commerce

Mr. H. A. Purdy, executive secretary,

for the Saskatchewan Board  
of Trade

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THE CHAIRMAN: Well, gentlemen, shall we come to order? Will you present your submission, Mayor Hammond, in any way you are pleased to do so? We have your submission, and it will be marked as Exhibit 37.

MR. HAMMOND: Mr. Chairman and members of this commission, I am very pleased to be here this morning on behalf of the citizens of Regina, to present to you the story of our city.

First of all I would like to welcome the commission to our city, and trust that you will find matters concerning our city and our province deserving of consideration, and that you will be able to throw some light on the economic future of our province. We do welcome the commission in our area, and we welcome you as individuals to our city of Regina.

We have gone to quite a bit of trouble, because we have taken this matter very seriously. Every department head in the city has been instructed, through city council, to look into this matter very carefully, so we can assist you in the work you are trying to do.

From the information we have received from our department heads we have prepared a further brief, which I am submitting here. However, we are also prepared to file with you the reports of the department heads, in which I am sure your staff will find more detail. I understand you have copies of some of those already, but I must submit them as part of



this brief, and they are submitted for the information of yourselves and your staff.

I understand you all have had copies of this brief, and it is not necessary for me to read it in its entirety; but I would refer to certain portions of it, which will take me perhaps 10 or 15 minutes.

We have dealt with this matter in this way. We have tried to give you some information on the past history of the city, the present, and the future, looking forward to 1981.

Past economy. Up to this time, the economy of the city of Regina has been based, mainly, on two sources of income for its people -

(a) The emolument reaped by the community from the fact that this city is the largest centre in the world's greatest wheat producing area.

(b) Income from salaries earned by governmental workers.

These were the stabilized income sources of the people of this city over the past 50 years, and it has only been recently that industrial development promises to bring about a diversified economy dreamed of for many years. The fact that we have oil in the province and gas coming has resulted in industrial development now in sight to the extent of about \$15 million during the coming year, so I think we have a great future in the city of Regina.

We felt that in the past there have been three periods of expansion in the city. There was one period from 1908 to 1914, when the foundations





of all public improvements were laid. From 1946 until this year, there has been experienced the third period of major expansion. In these years debentures have been authorized totalling \$25,688,987. In the same time \$7,733,607 debentures have been retired. The gross debt has therefore increased by \$17,955,379. In addition, the city has financed in these years through its general investment account \$4,399,600, of which \$2,263,200 has been repaid.

We set that out in detail to give you some idea of what we have needed this capital for, which has been obtained through local improvement debentures and general debentures. Under the local improvement debentures we have plank walks, asphalt walks, domestic sewers, pavements and concrete walks and water mains. Under the general debentures we have sewers, sewage disposal, swimming pools, hospital, collegiates, light and power and the Buffalo ~~Pound~~ development. You will notice that this is the biggest item, Buffalo ~~Pound~~, which is our water supply. This is an item of \$7 million we have had to finance in connection with water. We have also had a firm of consulting engineers look into our sewer programme, which is almost entirely completed, and they have given us a programme which will cost \$7 million in the next 2 or 3 years, which we are going to require to finance.

Then we go into the current expenditures and revenue of our city, and I will just read a couple of paragraphs on page 3.



In 1945 the gross expenditure for municipal purposes was estimated to be \$3,877,690 and the estimated revenue from all sources including utilities, license fees, amusement tax, etc., was estimated to be \$3,010,957, leaving a net municipal requirement of \$866,733 to be levied.

In 1955, the estimates as approved and adopted by council call for a gross expenditure of \$10,161,126 and an estimated revenue from all sources of \$8,070,999 leaving a net municipal requirement to be levied of \$2,090,126. In other words, the net requirement of the city this year was \$1,223,393 more than that provided for in 1945.

That gives you some indication of the extent of the growth of the city from 1945 to 1955. The requirement in 1945 was \$866,000 which was necessary to be levied, and in the year 1955 it was \$1,223,000, which shows the way we are growing.

Turning to page 4, in connection with building permits, you will notice that in the year 1946 we had 1,204 permits to a total value of \$6 million. If you go down to 1955 you will see that we had 1,513 permits, or about 300 more, but the total value was \$18 million. So while we had only a few more permits, the total this year is much greater.

In connection with our population, these projections we have here are only estimates. We had a town planner here a few years back, Mr. Faludi, who estimated that by the end of the twentieth century we would have about 90,000 people.





Well, here we are in 1955 and we have 83,000 already. So, just as his estimate was away out, these estimates could be out too; but they are based on the past history of the city.

You will notice that in 1911 we had 30,000 people. In 1931, 20 years later, we had 53,274. That was an increase of about 23,000 people in 20 years, which meant an average of a little better than 1,000 per year. On that basis we have forecast a population of 93,756 in 1961, 101,131 in 1966, 109,584 in 1971 and 125,231 in 1981. So 25 years from now we expect the population to be more than 125,000, though as I have said that estimate could vary up or down.

Then under our engineering department we have set out a list of works. As I pointed out, while we have our water system pretty well in hand, we have this \$7 million programme ahead of us for main trunk, storm and domestic sewers. There are also other items here which show that we are considering further developments in that regard.

Then we deal with the fire department, and on page 6 we point out that the city of Regina owns its three utilities, namely, light and power, waterworks and transit, with which we shall deal separately.

Light and power are important measures to the city of Regina. The revenue derived from that plant is equal to about 19 mills, so it does help us out considerably. Then we have the waterworks, the



transit system, the parks department and the police department, and on page 7 we deal with social service and the health department.

Then I would refer you to page 8, where it is pointed out in connection with hospitals that before another 15 years are past our hospital beds must be doubled in number. We have two hospitals in the city at the present time, and we feel that in another 15 years we will require twice the number of hospital beds now available.

I would point out here in connection with hospitals that these institutions do not only serve the citizens of Regina. They also serve people in the surrounding territory, in the towns and villages of an area close to the city. We figure that about 45 per cent of the patients in our hospitals are from outside the city, which is a very interesting point.

In connection with our assessments, to show you the growth of the city again, in the year 1955 our assessment stands at approximately \$65 million; that is our taxable assessment. In 1961 we expect it to be \$75 million and in 1981 it will be \$115 million. We also point out here that we have in the city tax exempt properties, which fall into three categories: properties exempt by dominion statute or the City Act; educational and city-owned properties, and properties exempted annually by the city council.

In connection with assessments may I say that every piece of real property in an urban municipality costs the municipality something. If





improved, it costs something more. If the buildings or buildings connected with it are occupied, it costs even more. It requires, itself, and its occupants require police and fire protection, street and sidewalk, sewer and water, street lighting, etc. Its occupants also require public health services. If they have families, educational facilities are also required. Other people in the municipality, whether they have children or not, have to assist in paying for educational facilities. As the occupants cannot pay the costs of these services out of their personal resources, other businesses are taxed in order to pay the difference between the taxes of their employees and the cost of municipal services.

It is considered that, to be logical, all undertakings, regardless of ownership, should be taxed. Yet we find that property of one level of government, situate within the boundaries of a lower level of government, regardless of the number of its occupants and the public services rendered to it and them, pays little or no taxes to the government of the lower level. If payments were made by one government to another in such instances, it would simply be an acknowledgment of the soundness of the principle of taxation.

Municipalities are required to pay dominion and provincial taxes, and it is difficult to understand why the federal and provincial governments, and certain properties such as the railways, located within municipal boundaries, should not be taxed on the



same basis as other properties and for the same reasons. It can, of course, be argued that churches and private schools are on a somewhat different basis; but even here exemptions probably should be limited as to area, and municipal out of pocket expenses for communications, fire and police protection should be charged and paid. In other words, if real estate taxation as a system is not to ultimately fail, then something must be done to preserve its foundations. Therefore, every endeavour should be made to bring all properties that should be properly taxed and are now exempt into the taxable assessment of their respective municipalities, and we respectfully suggest that every consideration should be given thereto.

THE CHAIRMAN: On that point, in other parts of the country when this question has been raised the federal and provincial authorities say they do not want to leave themselves at the mercy of the municipality, because the tax might be too high in relation to the federal or provincial buildings that are there. They, of course, like anybody else would have the right to appeal their assessment; but how do you feel about the arrangements that are made in some places where they make grants in lieu of taxation?

MR. HAMMOND: Well, if the grant in lieu of taxation were equal to the taxation itself there would not be any complaint. I think you will agree that the federal government have been considering this matter, and I believe they feel that they have





some responsibility, because just a year or so ago they said that when the assessment on their property equalled 4 per cent of the total city assessment, then they would consider paying taxes, some portion of the tax. But I guess many cities, like Regina, found that their assessment did not come anywhere near 4 per cent of the total. However, I understand that now they are considering reducing that 4 per cent to 2 per cent, and that they will pay --

THE CHAIRMAN: What is the principle involved in saying that the total must be 2 per cent or 4 per cent?

MR. HAMMOND: Well, I don't know. This is the system they are working out.

THE CHAIRMAN: I just wondered if there was a principle.

MR. HAMMOND: I could not tell you that. This is what they are working out themselves, and our city now has an application in on the basis of the 2 per cent. If I remember rightly I believe that will mean about \$73,000 to the city of Regina in connection with federal properties. That would be just a little over a mill. As I have pointed out, they have felt that the urban municipalities required some assistance, and I believe both the provincial and dominion governments have been considering such assistance. I know in the two years I have been attending the meetings of the Canadian Federation of Mayors this question has come up. The point is always raised that the urban municipalities should have some relief in connection



with taxation, because the property we have is real property. As I have pointed out here, the municipalities are required to pay dominion and provincial taxes. We have no exemptions from them. There are some small ones creeping in recently under which we are exempt from the sales tax on the purchase of municipal equipment.

Now if I may go on to page 10 --

THE CHAIRMAN: Before you leave that one point, Mr. Hammond, you were talking mainly about the federal and provincial authorities paying taxes on their properties in the municipalities. You also mentioned other tax-exempt properties. Have you as firm views on the question of other tax-exempt properties that you would like to express?

MR. HAMMOND: Other tax-exempt properties are educational and city-owned. If we taxed educational and city-owned properties it would be the same thing as if you taxed all the schools. You are just taxing yourselves from one pocket to the other.

THE CHAIRMAN: You mention private schools and churches.

MR. GRAUER: And railways.

MR. HAMMOND: I mentioned churches. Some of those institutions might pay the cost of such services as fire and police. It would not be the full amount of the tax.

MR. STEWART: Do they pay for garbage collection?

MR. HAMMOND: No; we do not have a charge





for that here.

MR. LUSSIER: Don't you think the churches might help the police if they converted all the sinners and helped them to behave themselves?

MR. HAMMOND: Yes, I think that would help us a great deal. The other category is properties exempted annually by the city council. Those properties which are exempted annually are such buildings as those owned by the Salvation Army, the institute for the blind, and so on; and I think our citizens will back us up in any exemptions or assistance we give those organizations, because they are doing good work in our communities and are having a difficult time in financing. Many people give a good deal of their time to these institutions. I do not regret assisting people like that, and I think the taxpayers will support us in that. I do not think there is any quarrel with that at all.

Now may I say a word about schools. We have also been asked to report on what the school requirements are likely to be over the next 25 years, and have been advised by the Regina public school board that insofar as they are concerned, they will require 30 new classrooms in 1956, at an estimated cost of \$800,000. By 1961 it is estimated that a further 114 classrooms will be required at a cost of \$2,850,000. In 1966 another 90 classrooms are estimated to be required at a cost of \$2,250,000. In 1971, 60 new classrooms are anticipated at a cost of \$1,500,000 and, in 1981 a further 120 new classrooms



will be required at a total cost of \$3,000,000. The foregoing figures are based on a cost of \$25,000 per classroom.

In the next 25 years, the separate school board anticipates it will require 20 ten-room schools, or 17 twelve-room schools. The board anticipates that the cost per classroom would be in the neighbourhood of \$20,000.

The Regina collegiate institute board anticipates that for secondary and technical education, it will require one additional collegiate in 1961, another one in 1966, another one in 1971, and two more in 1981.

In other words, over the next 25 years, it is expected that 5 more collegiates at an estimated cost of \$1,250,000 each will be required.

All these figures are based on present day costs. If they continue to soar as they have in the past few years, these figures might all have to be increased considerably.

Now, that completes my rather hurried presentation of this brief. If there are any questions which you feel would be of assistance to you in your deliberations, if I cannot answer them I have the assistant city commissioner here, who is well versed in all the angles of city government, and we will be only too pleased to give you any information we have.

THE CHAIRMAN: Apart from thinking that this is a very helpful presentation to us, coming





from the east the thing that impressed me most, I think, is that you do not seem to have a traffic problem in Regina, or at least it is not featured as much as it would be in Toronto or Montreal.

MR. HAMMOND: Well, we certainly have a traffic problem in our city, though it is not in the brief. I think the number of cars per capita in our city is as great as in any other city in Canada, if not greater.

MR. GRAUER: Do you recall the figure?

MR. HAMMOND: I am not sure. This is only a stab in the dark, but in some places it runs about one car per 5 of population, but I believe we are running around a little better than one to 3 of population.

In the city this year we have instituted a one way street system. We have found that to be very helpful in moving traffic faster and with less inconvenience. We have also widened three streets in our city, which has been received quite well by the people who live in those areas. In order to move traffic we found we had to widen those streets, and I must admit that did cause a few people to feel rather angry toward city council, because we had to use all the city property. We have not infringed on their property, but some of them took it with a bad grace. However, that was what we had to do to endeavour to ease the traffic situation in our city.

We have also widened College avenue and made it a three-lane highway on the south side, where we only had a two-lane highway before. We have 5 lanes



now, and we expect to go further with that, because we are making a throughway there.

In connection with the widening of College avenue we have received a great number of compliments, and on the south side there will be no residences affected; it will be all in connection with the educational institution.

We have built up our police force in the city, including the traffic department. We have installed parking meters; and to move traffic away from the centre of the city we are even taking areas that are a little further out and putting parking meters on them, and they are proving to be very popular. But we do have a traffic problem; there is no doubt about that.

MR. STEWART: Just as a matter of interest, Mr. Mayor, do you have a separate collegiate institute board?

MR. HAMMOND: Yes.

MR. STEWART: What area is it responsible for?

MR. HAMMOND: It is responsible for the whole city. They make their own budget or assessments and present them to city council, like the school board, and the city takes in or collects their taxes and turns them over to them.

MR. STEWART: Is this a combined high school, with vocational courses?

MR. HAMMOND: Yes.

MR. STEWART: But it is separate from the





ordinary high schools?

MR. HAMMOND: No; this is the collegiate. We have the public schools, which go up to grade 8, and then the collegiates from grade 9 to grade 12. We have the public school board which operates for grades 1 to 8, which is elected by the citizens. The collegiate board is also elected by the citizens, and it operates separately.

MR. STEWART: On page 1 you have a reference to the new industrial plants, and you use the words "outside the present city limits." Is there any significance to the word "present" in that sentence?

MR. HAMMOND: Yes. At present we are applying to the provincial authorities to annex to the city various properties on the outskirts within a radius of half a mile in some places and a little more in others. In all cases we have received petitions from the property owners, because it is going to mean a little more in taxes. It may mean that their taxes will double, but they failed to realize that as soon as they are brought into the city, their property will be worth far more than it is outside the city limits, the way the city is growing.

At one time the city had a good deal of residential property for sale; that is, city-owned property. Right now we are running out of such property; we have no more. So it means that private real estate people will have to find these areas which they wish to develop and approach the city to have them brought into the city limits.



MR. STEWART: These areas in which the plants are presently located are in the rural municipalities, are they?

MR. HAMMOND: That is right.

MR. STEWART: And they are taxed by the rural municipalities?

MR. HAMMOND: Yes.

MR. STEWART: How do they feel about you taking them in?

MR. HAMMOND: I do not think they feel too favourable toward that. They feel that when this property is brought into the city they should receive some consideration, though they do not say what the consideration should be. They are losing some tax revenue, and like every city in Canada we are looking for some other basis of taxation. We hate to lose any we have, and I cannot blame them for not wanting to let go of it too easily. I would do the same thing myself if I were in their position.

MR. GRAUER: Your water works and transit departments pay their own way?

MR. HAMMOND: Yes. The waterworks department has a surplus, but our transit system gives us a little trouble. It invariably goes into the red.

MR. GRAUER: That is not unusual.

MR. HAMMOND: No; I understand that transit systems all across the country are having difficulties. Recently we saw a deficit staring us in the face, so we increased our fares. While the





number of riders has dropped, the revenue has increased a little. The transit department is a department that is having difficulty in achieving a balanced budget.

THE CHAIRMAN: Well, thank you very much, Mayor Hammond.

MR. HAMMOND: It has been a pleasure indeed.

THE CHAIRMAN: We are very grateful to you, and this brief will be of help to us.

MR. HAMMOND: I am submitting the brief, and here is the detailed information which went into it.

THE CHAIRMAN: Thank you very much. Now we are to hear from Dr. Thomson, director of P. F. R. A., whose brief will be marked Exhibit 38.

MR. THOMSON: Mr. Chairman and members of the commission, I want to thank you for this opportunity of presenting some of the work of the federal government in regard to ~~rehabilitation~~. This morning I have brought with me some of my staff. With all the varied questions that were asked yesterday I thought I might introduce them to your commission. I have with me Mr. MacKenzie, who is our chief engineer; Mr. Watson, who is our chief construction engineer and has built most of the projects in the west; Dr. Spence, our economic adviser, and Mr. Berry, in charge of the hydrology work for the organization and also secretary of the prairie provinces water board.

Yesterday you were given a picture of the conditions in Saskatchewan. I am not going to repeat that this morning. I think you obtained a fair idea



of the soil and climatic conditions as far as Saskatchewan is concerned, and for a moment I might just indicate on the map where the same conditions exist in the province of Alberta.

Yesterday morning you were discussing this area I am indicating. The same conditions, pretty well, exist in Alberta, going across west to Calgary, to the foothills, and to Lethbridge in the south. So when we consider the prairie area I shall be referring to this area here, which I am now indicating, and going into southwestern Manitoba.

You have copies of my brief, but I want to say just one word in regard to grain growing, as it was one of my main concerns in this work for a number of years, before I came to the prairie farm rehabilitation organization. I just want to emphasize that as far as wheat production is concerned, soil moisture and its conservation and use by plants, forms one of the most important factors in successful crop production on the open plains of western Canada.

On this account farm practices differed considerably from those employed in the eastern part of Canada and in the wooded sections of the prairie provinces. At the present time the only means known to counteract the evil effects of a dry season is to follow those methods of soil cultivation that will ensure the maximum amount of soil moisture for plant growth.

There are many other problems that occur





periodically. One is ~~abnormal~~ rainfall in low lying areas, which become badly flooded and suffer crop losses for several years. This condition is particularly found in the dark brown soils, such as the Regina plain and the Rosetown plain.

Those problems, however, are within the control of man, and can be solved. Within the last 20 years on the prairies there has been a steady improvement in soil cultivation and methods of grain production. Today there is basic information to guide better land use practices. Thirty years ago there was no such information available, nor had it been available since the time this country was settled.

While there has been great improvement in grain production, we must still be alert to the future. A progressive programme of research and education should be maintained and extended, to maintain the position of one of Canada's main exports; that is, wheat.

The reason I mention soil moisture, Mr. Chairman, is that it has been my experience across Canada, as far as crop forecasting is concerned, that there are many agencies across this country who are predicting from time to time on the basis of rainfall records, going to certain expenditures right across the country. On the other hand those of us who have been engaged in research have believed for a long period of time that the only basis upon which crop forecasting can be entertained in any way is the basis of the ability of the farmer to conserve



some of the rain that falls this year in order to have a crop next year. That is the basis of our dry land farming philosophy across the prairies.

Lands unsuitable for grain production are used for the production of livestock, and that is described on page 6 of the brief. You have a copy of my brief with regard to the black soils; but seeing that your commission asked me to deal with rehabilitation I shall pass on to page 7.

First of all, however, yesterday you were given figures regarding the cost of relief in Saskatchewan over the last 50 years. While I do not have the exact figures, I believe a close estimate would be that during the last 50 years relief has cost the country some \$300 million in the three prairie provinces.

Let me give two illustrations of how upsets occur. Some of this information, and perhaps more, was given to you yesterday. The one illustration that stands out to me is crop district No. 3 in southwestern Saskatchewan, which is the largest wheat producing crop district in western Canada. I will indicate on the map where that district is. In 1937 only 500,000 bushels of wheat were produced in that area. The average production for the 40-year period from 1916 to 1953 was 39,220,000 bushels on just over 3 million acres. Bearing in mind that in 1937 only 500,000 bushels of wheat were produced, in 1952 the production on the same acreage was 88,414,000 bushels. So production in that crop district increased from 500,000 bushels to 88 million, which is quite some indication of the variation that occurs. Of course





1937 was the driest year in history.

I might say that at that particular time there were some 300,000 horses running over that area, that had no value. However, it was necessary to ship under forced marketing, due to lack of feed and grass, over 700,000 head of cattle in southern Alberta and southern Saskatchewan. I believe from southern Saskatchewan the figure was something like 500,000. They were all forced on to the market at 1/2 to 1 1/2 cents a pound.

That, of course, was an upset in the livestock economy of Canada, when we had to force so many, many cattle on the market at such ruinous prices. The tragedy, however, was not so much in the marketing of the cattle as in the depleting of breeding herds which had taken 20 years to build up.

These two examples are quite pointed, but I want to carry on further. In 1946 the Saskatchewan government, recognizing the problem of devising a more efficient programme of land use, appointed a committee to review the whole position and take 16 municipalities as a pattern in which to develop a programme for this province, right around the city of Swift Current. I was asked by the government to be chairman of that committee, and I just want to point out one or two phases in connection with that matter.

From 1919 to 1945 in these 16 municipalities agricultural aid cost around \$25,500,000. Most people would say, "Well, you might sell off the land, or turn it back to the Indians" but of course that is not the case. While this was going on from



1919 to 1945, these 16 municipalities produced over \$200 million worth of agricultural products.

The point I want to make in that regard, in connection with this land use study, is that the job today -- and looking ahead 25 years, the job tomorrow -- is to determine how wisely that \$25 million in agricultural aid was spent, and how wisely such aid can be spent during the next 25 years to bring stability to agriculture.

It was quite apparent that steps had to be taken in view of all these conditions you heard about yesterday, and the three provincial governments met with the federal government in Saskatoon in 1934. That was the inception of the Prairie Farm Rehabilitation Act, which was passed by parliament in January, 1935.

As originally passed, the Prairie Farm Rehabilitation Act was set up for a 5 year period, with a vote of \$4,750,000, to be spent on measures to provide for the rehabilitation of drought and soil drifting areas in the prairie provinces, in what is referred to as the P. F. R.A. area, as is shown on the map which you have attached to the brief.

Before I was called upon to assist in the writing of this act in 1935 I had the opportunity to view all these problems in the dust bowl region of the United States. There was a question as to whether ours should be a national act similar to the United States soil conservation





service which was started prior to that, in 1933. But we all believed that it would be much better to work with the provinces and with the universities, as well as the respective departments of the federal government. In that way we felt we could co-ordinate the work and not duplicate anything that was going on at that time. That was another reason for the act.

Then in 1937 it was necessary to have an amendment adopted by parliament extending the scope of the programme by making specific provision for the withdrawal of poor quality lands from cultivation and the resettlement of farmers operating such land. By a further amendment in 1939 the 5 year limitation was removed and the act was continued in force indefinitely.

During this time many policies for resettlement were in operation in the respective provinces. For example, prior to 1926 the province of Alberta -- no doubt you will hear about this in Edmonton -- moved thousands and thousands of farmers from the area around Medicine Hat to lands that were available in northern Alberta, and some 8 million acres of land have been abandoned in the southern portion of Alberta. Of course anyone travelling from Calgary to Edmonton does not get the picture that prevails right in that area, where only 4,000 families are living on 5 1/2 million acres of land. That was an abandonment that took place prior to 1926.



Today the administration of the P.F.R.A. has many projects in hand, varying widely in scope; but the objective is better use of the land to minimize the problems of drought and to provide stability to agriculture. Later the administration was also made responsible for the construction of the major irrigation, land reclamation and land development works which, because of size and location outside the P. F. R. A. area, are not included in the actual P. F. R. A. appropriation.

That came about as the result of four provinces asking that the P. F. R. A. area be expanded to cover the whole west. In 1947 parliament agreed to consider the proposals that were made by the provinces in regard to irrigation and reclamation projects.

Since 1935 the expenditures under the federal vote for P. F. R. A. have been as follows: From 1935 up to March 31, 1956, the total is estimated at \$54,660,128, while for major irrigation, reclamation and other special projects the total is \$56,650,178. In other words over \$110 million has been spent since 1935 across the four western provinces. Then I have broken it down according to provinces, as follows:

<u>"Province</u>	<u>Amount</u>
Manitoba	\$6,824,234
Saskatchewan	45,124,448
Alberta	45,419,463
British Columbia	3,242,161





In recent years substantial revenues have been received, which amount to over \$5 million. Then there are substantial sums in liquid assets that will be returned to the government over a period of time.

Reference should be made to Manitoba and British Columbia expenditures. There are no large scale irrigation projects as yet, except of course those constructed in British Columbia some years ago. In Manitoba the major expenditures are for the reclamation of delta lands at The Pas; flood protection on lands in the watershed of the Riding and Duck mountains, where fertile farm land was being damaged by floods; and flood control works on the Assiniboine river between Portage la Prairie and Winnipeg, and further work done this year.

In British Columbia expenditures were made for flood protection of farm lands at Pemberton, just 50 miles from Vancouver, and for the construction of small water conservation projects for irrigation in the Okanagan valley, where under the Veterans Land Act there are many small holdings.

It should be understood at this time that substantial expenditures have been made by the respective prairie provinces. Special agreements have delineated the responsibilities of each government. The main expenditures have been governed by order in council P. C. 2298. I am sorry I do not have that as an appendix to the report, but I can have it without difficulty if you are interested.



I shall not describe the achievements or the accomplishments of all this work done jointly with the provinces, but will table as appendix 1 to this brief the last 5 yearly reports, and I will have the latest report at the end of this week.

The other complementary act referred to yesterday is the Prairie Farm Assistance Act, passed by parliament in 1939. Under the terms of that act, upon application from the rural municipalities or the province, awards are made for crop failures in an area where the average crop yield is 8 bushels per acre or less. Payments are made of up to \$2.50 per acre, depending upon the yield. A farmer may obtain assistance on one half of his cultivated acreage. A levy of 1 per cent is made on all grain sold by farmers to purchasing agents. A statement of the expenditures and revenues received since 1939 is contained in appendix 2.

You will observe from appendix 2 that the expenditures to date have been \$178,973,276, while the total 1 per cent levy has amounted to \$88,750,952. In other words it runs about 2 to 1. One of the purposes of the act is to avoid the policy of paying out direct agricultural relief in the event of crop failures or any such other disaster, such as rust or flood damage.

The two acts have a definite relationship. One of the objectives of the P. F. R. A. is to take lands that are unsuitable for growing cereal crops out of production. This programme has been continuing





for 20 years, and many thousands of farmers have been rehabilitated. This programme has reduced the acreage that would normally be growing cereal crops and receiving P. F. A. A. payments. The objective is to reduce the gap between P. F. A. A. payments and the revenue received. It is a long-term programme, and while much has been accomplished in 20 years, there is still a long rehabilitation programme ahead if all resettlement needs are going to be met.

The examination of P. F. A. A. records indicates certain trends and the need for measures to correct them over a period of time. In southwestern Saskatchewan during the past 15 years some 25,444 farmers have received payments for crop failures. In southeastern and east central Alberta some 15,145 farmers have received payments. These amounts total approximately \$80 million.

It is quite evident that some correction in land use is necessary to bring greater stability to agriculture in these two areas. Map No. 3 shows this picture clearly. You will note that the brief suggests that while there are some things that can be attended to immediately, others are going to require more study. It is estimated, according to this brief, that during the next 10 years, or as soon as lands are available, it will be necessary to move 8,000 farmers from this area of southwestern Saskatchewan and southeastern and east central Alberta, so that those who remain will be able to have larger units to operate on what we say should be a grain-grazing



basis.

In 1935, when the Prairie Farm Rehabilitation Act was passed, we recognized that to meet the needs of resettlement it would be necessary to explore the possibilities of the water resources. That was why investigations were begun on the St. Mary irrigation project and the Bow river project, which are now partially completed; and they are all contained in the report. Those projects are in the vicinity of Maple Creek and Swift Current. They have all been completed, and a certain measure of rehabilitation has taken place. Therefore the development of the water resources for irrigation is vital to the future agricultural economy. Irrigation will not be the total answer, but will be a very important part of rehabilitation. While I have not referred to it in this report I believe I do refer to it later, and as far as Saskatchewan is concerned there are limited lands available for the movement of people to the north. I think that was explained yesterday.

Before embarking on the development of water conservation projects, it is essential to study the water supply for the prairie provinces. Therefore appendix 3 is attached to give an up to date picture of the water resources. Map No. 4 is also attached, which shows the watersheds and includes the existing and proposed use of the water resources. It will be observed that the main supply of water for the prairies is in the South Saskatchewan river basin.

I point out on the map the Bow river, and I indicate where the Red Deer river joins it, here at Empress, and forms the South Saskatchewan, which





joins the North Saskatchewan east of Prince Albert and then flows into lake Winnipegosis and then, of course, on to Hudson Bay. Other smaller watersheds include the Cypress hills, bordering Alberta and Saskatchewan; the Wood river watershed, contiguous to Gravelbourg, Saskatchewan, and the Souris river basin.

It will also be observed that the foregoing watersheds are located through the heart of the brown soil zone, where rehabilitation is of major importance. One should not gain the impression from map No. 4, where we show the present and proposed use of water, that there is a plentiful supply of water for all time. Such is not the case. That is one reason for the establishment of the prairie provinces water board by agreement among the three provinces and the federal government, and its duties are to recommend projects for the beneficial use of water of interprovincial streams and rivers.

Then on page 14 I present all the various proposals. At the bottom of the page you will see that total land irrigated in Alberta and Saskatchewan at the present time amounts to 900,000 acres. Under construction are projects to irrigate another 200,000 acres, and our total proposals looking ahead for the next 25 years will irrigate another 2,690,000 acres. It will be observed from these tables that there are at present 900,000 acres of irrigated land in southern Alberta and southwestern Saskatchewan; and I would say 10 per cent of that land is in special crops for canning. The St. Mary project in southern Alberta



will probably be completed by 1958, and all these other projects have been declared engineeringly feasible.

As to present developments in connection with rehabilitation, if you will look at this map, these are what have been completed since 1947. That includes the St. Mary project, the big dam south of Lethbridge, with the project running right up to Medicine Hat. You will observe on the P. F. A. A. map I gave you that this is where they have had crop failure bonuses in 11 years out of 14, and in some cases in 14 years out of 14. That is all completed right east of Medicine Hat at the present time.

There are some private irrigation projects, such as the United Irrigation District, but what I want to refer to for a moment is a project that was started in 1910 by the Canada Land and Irrigation Company, a British concern. From 1910 until 1945 this British company spent over \$18 million on this project, of money obtained by the sale of shares to British people. They were expecting to obtain a return of their money from the sale of land, but because of many circumstances and reasons they were unable to get much revenue from it, and as a result the company went bankrupt in 1922 or 1923, the federal government taking it over for about a year. Then, after many consultations with the Alberta government and by the people who were settled on that land, the federal government decided to buy it out in 1949 for \$2,250,000. That was the end of the work of that company.





The St. Mary project is a joint project between Alberta and Canada, by agreement, and up to the present time some \$30 million has been spent, on about a 50-50 basis.

The federal government agrees to undertake the construction of capital works, and the provincial government agrees to build the distribution system, and also undertakes the settlement of the land. The expenditures are about 50-50 to date.

Then in 1910, I believe it was, the C. P. R. obtained a block of land in one place and constructed this project called the Eastern Irrigation District, in which they invested some \$26 million. In 1935 that project was turned over to the farmers to operate. I shall be referring to that a little later on.

All of this indicates some of the projects which have been undertaken, which have made some contribution to rehabilitation needs. Consideration must be given, however, to the extent to which these projects can assume new settlers. Reference is made to 8,000 farmers in need of rehabilitation. On the Bow river and St. Mary projects it will be possible to provide irrigated units for approximately 4,000 farmers. On other smaller projects under construction it will be possible to extend this figure slightly. Therefore it is necessary to consider the proposed projects, of which the main ones are the South Saskatchewan river project and the Red Deer project in Alberta, where water can be taken from the Red



Deer river to irrigate lands in this block I am indicating, where thousands of farm families were moved prior to 1926.

The South Saskatchewan river project was discussed yesterday, and I want to make only a very few comments regarding it.

The South Saskatchewan river project, unlike the other projects, is a multiple-purpose one. It provides for the best use of the water resource through irrigation, river control, power supply, urban water supply, recreation and employment. One of the important features is that it is the only location in the three prairie provinces where such a large body of water can be stored. For example, the geologists tell us that 10,000 years ago the South Saskatchewan river used to go right down to the Red river, forming this big area I am indicating on the map. It is strategically located to provide a water supply for industrial development in the foreseeable future.

In most parts of central Saskatchewan, for a radius of 200 miles from the dam site, water supply has only been sufficient for limited domestic needs. This morning the mayor was speaking about the water supply of Regina. The city of Regina is now obtaining its water from Buffalo Pound lake, but that will become part of the South Saskatchewan river project, and a steady supply will be maintained if the dam is built.

Any industrial development in areas such





as Melville, Yorkton, Moose Jaw, or Regina, poses a serious water problem. As a matter of fact some places like Melville have been hauling their water in tank cars during the winter time. Then as you go through the gas fields up toward Kindersley and Eston, which are only 12 miles from the river, you find that this town of Eston, with 2,600 people, has paid \$3,600 a year to haul water in tank cars. I said to them awhile ago, "Why not pump it from the river?" but the capital required for that would be beyond their means.

At present these towns in the centre of the oil development are hauling water by tank car and truck, even in the wettest years in history. Should dry years occur again, I would predict that all these towns would be short of water. The raising of the level of the river and a reservoir with some 400 miles of shore line would be a distinct asset to the province as a whole.

As to the engineering feasibility of the South Saskatchewan river project, that has been successfully determined. Since 1943 P. F. R. A. engineers have made and completed the investigations on all phases of engineering. The construction of earth dams on the St. Mary river and many others has formed a valuable background of experience for the construction of this project. In addition, a board of consultant engineers has been employed for many years, consisting of men who are world authorities and who are consultants for the large dams in the



Missouri basin in the United States, where foundation conditions occur similar to the South Saskatchewan river project. It is our belief that no project in the history of dam construction in Canada has been as well planned. Many engineering reports are available from P. F. R. A. for any further study.

As to economic feasibility, I would suggest that the South Saskatchewan river project is economically feasible. Leaving aside in this presentation a discussion of the several purposes for which the project should be developed, and the benefits from each in support of its economic feasibility, I might dwell for a moment on one of its uses, namely irrigation.

Elsewhere I have touched upon the frequent occurrence of drought on the prairies, and I might have added the growing importance of our irrigated land to alleviate the incidence of such droughts. Central Saskatchewan, through which the South Saskatchewan river flows, is a relatively dry area, and this project is strategically located for economically irrigating a considerable portion of it. Thus by utilizing the river, not only can a goodly part of the area be made a dependable source of food, but the source of food of a high protein value from livestock and livestock products, as well as the more bulky leafy foods associated with successful irrigation farming.

This, of course, hinges upon a growing demand for such products, which appears most likely to occur based upon present trends in the growth of





our population, industrialization, and other evidence of economic activity calling for more balanced diets associated with higher levels of living. The relative merits of the South Saskatchewan irrigation development as part of a multiple-purpose project in contrast to other potential development areas in agriculture will be pointed out later.

As to indirect benefits, the briefs presented in the report of the royal commission on the South Saskatchewan river project refer to the many indirect values accruing from the project. It is difficult to measure them in money value and no attempt will be made here to summarize them. One indirect value, that is freight, has been measured, however, in the eastern irrigation district in Alberta.

This project was constructed by the C. P. R. in 1910, and when full development took place it was transferred to the farmers for maintenance and operation. A study was made of freight statistics which were made available by the C. P. R., and a brief summary of these investigations is contained in an address by Dr. C. C. Spence to the Canadian Agricultural Economics Society meetings in Winnipeg on June 27, 1951. The following is quoted from that address:

"During the past 25 years, gross revenue taken in by railway stations within the eastern irrigation district has amounted to more than three times that of an equal number of stations to the east, serving a dry land area more



than three times as large. The gross revenue taken in at these stations within the eastern irrigation district to date is just about equivalent to that which the company wrote off on its investment in developing its irrigation; so, if one were to accept this gross railway take-in at the stations within the district as a reimbursement for the investment, the account may be considered as squared.

"However, it can be properly argued that the gross revenue must cover the operating and carrying costs of the carrier business, and so only the net revenue can be entertained as an offsetting reimbursement to the investment made to increase the volume of traffic in the irrigation development. In this case, accepting the net only, the account is not as yet settled; but on the other hand, with the plant established and the growing volume of production which has characterized the eastern irrigation district in the last 15 years, the C. P. R. as a developing agency stands well to recover its investment in irrigated land and much more in the not too far distant future."





And Dr. Spence, whom I have just quoted, is here today. I might refer for a moment to the British company that started here in 1910 with this project. The only revenue they could obtain from such an investment, of course, was from the sale of land. There was not a carrier agency like the C. P. R., and as a result they went bankrupt.

Then the question of employment comes into it as far as the South Saskatchewan river project is concerned. The high level of farm income in irrigation districts has reduced the number of farmers and their sons seeking off-season employment. This is outside the employment provided during the construction period. The construction of the dam and reservoir would provide 18 million man-hours of labour as on-site labour. The total project, including irrigation and power works, would require about 26 million man-hours of on-site labour. At least an equal amount of off-site labour would be required.

I might refer here to the building of the St. Mary project, which is just completed. In making some study of the expenditures made on that project, there were only about 50 per cent of them made in Alberta. The other 50 per cent were made in Vancouver, Winnipeg, Toronto and Montreal.

Then the question of power development was brought to your attention yesterday by Professor Cass-Beggs, general manager of the power corporation. I just wish to refer for a moment to the Red Deer



project in central Alberta. This project is often called the William Pearce project, and was first proposed in 1921, when surveys were carried out by the reclamation service of the Department of the Interior. Subsequent surveys by the P. F. R. A. have somewhat modified the project, but as it is proposed today it would consist of a storage dam and diversion works on the Red Deer river near the town of Ardley, Alberta. The water supply would be obtained from the Red Deer river, and for ultimate development it would have to be supplemented by diversion from the Clearwater river, a tributary of the North Saskatchewan, and by diversion from the main stem of the North Saskatchewan.

The irrigable lands would lie in central Alberta, south and east of Hanna. Plane table surveys and soil surveys have been carried out on a total area of about 650,000 acres. It has been determined that water can be delivered by gravity to about 300,000 acres and by pumping to an additional 200,000 acres. Soil surveys of this area indicate that some of it may be unsuitable from the soils point of view. That is the area I stated was abandoned some time ago; and, as I said before, there are 4,238 ranchers and farmers occupying 5 1/2 million acres, most of them in the cattle business on a grazing basis.

The building of this project would bring stability to the agriculture in the area and also provide over 2,000 irrigation units for the





resettlement of farmers. This project has many of the same benefits, direct and indirect, as the South Saskatchewan river project.

Surveys have been carried to determine the feasibility of extending the project to serve lands in the province of Saskatchewan, in particular in an area where I believe some 200,000 acres may be involved; but the engineering feasibility has not been completely determined as yet.

In referring to this project and mentioning the 4,000 farmers, many of them have received crop failure bonuses. If you will consult map 3, which you have, in some cases over a period of 15 years these bonuses have amounted to \$5,050 per farm, and of course there is no return for that money which has been expended.

The foregoing has been a very brief commentary on the development of the water resources. Map No. 5 gives a pictorial review, based on present information. Appendix 3 gives an analysis of present and potential use.

It would be presumptuous on my part to say that the information given is the last word; far from it. There is a great need for more exhaustive investigations into some of the existing and proposed projects. Up to date a very conservative approach has been made in evaluating the projects. In some cases, such as the South Saskatchewan river project, I believe there can be a much larger area of land



irrigated than present estimates give. Likewise in other parts of Alberta and Saskatchewan the same situation is apparent. Map No. 6 gives an indication of the possibility of irrigating certain lands, amounting to 2 million acres, that are suitable for irrigation from the point of view of climate, soil and topography. These areas were selected from air photographs. Looking ahead 25 years and even 50 years, their use by the application of water may be of economic importance in 1980.

For example, in the South Saskatchewan river project we make it more than 500,000 acres, and in many of the other projects in southern Alberta we may be able to command more acreage.

We did make an aerial photographic study of all these lands in southern Alberta and southern Saskatchewan with which we are acquainted, and map No. 6 gives an indication of the possibility of irrigating certain lands amounting to 2 million acres that are suitable for irrigation from the point of view of climate, soil and topography.

These areas were selected not from the point of view of any water supply, because we do not know the picture there, but looking ahead 25 years, when some of these other projects are completed, and even 50 years, their use through the application of water may be of economic importance in perhaps 1980.

Suggestions have been made by different organizations for a water plan for western Canada.





I believe we have one now, and I have endeavoured to present a part of the picture. I recognize that there is still a need for more exhaustive investigations, and some modifications in water resource development may be necessary. If, however, a blueprint of the development of water resources is required before any development is undertaken, then I believe it will be 25 years before any further development can take place.

I also wish to refer for a moment to reclamation and flood control projects.

Stretching westward from The Pas in Manitoba is an area of 1 1/2 million acres of land which is subject to flooding. An agreement was reached with the province of Manitoba 3 years ago, under which we will be spending close to \$2 million on works to be completed next year to reclaim 135,000 acres of land. In Saskatchewan there are some 750,000 acres which are regarded as soil that would be suitable for settlement providing this area is reclaimed; that is, that it is engineeringly feasible to control the river.

Also it should be noted that a hundred years ago the Hudson's Bay Company cut a channel in the Saskatchewan river in order to let water out and flood the land for muskrat farming. We expect to have a report on that completed next year, and what we are very careful about in a project of that kind is that we do not want another Holland to happen in northern Manitoba.



Certain programmes have been under way, under an agreement between the federal government and the Manitoba government, in the protection of existing farm land from flooding, in the Dauphin area, which I am indicating on the map and which I referred to before, and also in the Assiniboine river. The Saskatchewan government, as was mentioned yesterday, is also undertaking a large number of drainage projects which will relieve the abnormal flood conditions, and they are shown on the map you have in the brief. That is in this area I am now indicating, and down in the southeastern part of the province they have many projects at the present time.

Now I wish to review the rehabilitation needs for the next 25 years. The analysis of this problem has discussed mainly water resource development for irrigating land, with a few comments on reclamation possibilities. Earlier I stated that it was recognized 20 years ago that water resource development was necessary to meet the needs of resettlement, resulting mainly from drought. While the years 1944 to 1954 have resulted in reasonable returns for the majority of farmers, yet there are still many farmers who have not enjoyed improved conditions. The examination already made of P. F. A. A. records illustrates this point.

In reviewing the irrigation projects, present and proposed, the number of farm units which will be made available during the next 25 years are estimated as 2,000 from the St. Mary irrigation project;





1,500 from the Bow river project; 2,000 from the South Saskatchewan river project and 2,000 from the Red Deer project, or a total of 7,500 farm irrigation units that would be made available.

The problem of resettlement would be partially met, but it would take about 25 years to get the work done. You cannot construct these projects and resettle people in a short time. That is a long-term job.

Applications for irrigated land are much greater than the irrigation development which is taking place. With increased population, the second generation are now seeking land, particularly in the irrigation districts. I had an application the other day from a Mennonite association in Alberta, asking when the Bow river project would be completed and requesting that they be resettled, because with the large families the farms are not large enough to maintain them, and these people are looking for places to go. Applications from veterans of world war II have not been fully met. Immigrants and displaced persons are now applying for land. Over 3,500 applications have been received for irrigated land, but it is impossible to consider them at this time.

A public investment in the development of irrigation and reclamation projects would greatly assist the rehabilitation policy. It would reduce the liability to land use in all those areas I have briefly mentioned, and bring about a sounder



programme, along with a more prosperous farm population. There would be a substantial reduction in those payments for aid made by the state; and any public expenditures during the next 25 years would be creative in building up the nation's resources for the following 25 years, or to the year 2000.

Now I wish to say a word or two about alternative public investment. The question is often raised as to alternative public investments in land, such as the wooded lands in the northern parts of the prairie provinces.

All new potential arable farm land of the prairie provinces is in northern woodland regions and characteristically a grey soil. The most reliable estimates of the extent of this are 12 to 13 million acres, of which approximately 5/6 is in Alberta, chiefly within the Peace river block. There is estimated to be about 750,000 acres of potential new land in Saskatchewan. Then there is an area of wooded land in northern Manitoba that has possibilities for settlement.

Even if there were less demand for western agricultural land and a choice were to be made for encouragement of development through public investment between farm land in the northern woodland region and irrigated farm land on the prairies, there is no conclusive evidence that the returns of one will exceed the other in relation to the costs. In the proposed irrigation projects it is estimated that the capital cost of bringing an acre





of the more fertile prairie soil into irrigation use, excluding the cost of the reservoir, will be about the same as clearing, breaking and other necessary land improvement work, for an equivalent unit of productivity on the less fertile grey-wooded soil without irrigation amounting to 2 acres. Thus the capital cost of the reservoir to bring irrigation to the occupied prairie area must be offset by the capital costs of providing railways, roads, schools, hospitals and other public services in the new area, to the value of these services already provided in the dry area to be made irrigable.

To further attempt to catalogue the benefits of each would be academic, because when the needs of resettlement are considered, and when the demands for land are met, and finally population trends are satisfied, both developments will be needed if western Canada is to occupy its proper place in a growing nation.

Now I wish to say a word or two about individual farm and community water storage projects. I have discussed mainly the larger water conservation and reclamation projects up to this time, insofar as rehabilitation is concerned.

The importance of water storage on individual farms and storage of water by organized water users' associations should not be overlooked. The experience in this phase of water resource development has been very encouraging. I would refer the commission to the 1955 P. F. R. A. report



which is contained in appendix 1. Since 1935, farmers in the three prairie provinces have constructed 51,691 individual farm projects. They are dugouts, stock watering dams and small irrigation projects. The federal government has provided \$6,100,662 in financial assistance and, as well, engineering service, and we regard this as one of the best investments we have ever made.

Then there are individual community water storage projects. A typical irrigation project is at Val Marie, which is about 60 miles south of Swift Current, and I have endeavoured to give you an artist's view of that in the back of the brief. It is a combination irrigation project, and there they have changed from 4,000 acres of growing wheat to the growing of hay and forage crops. There they had 156 cattle in 1937 after the marketings were made, while today they have close to 6,000 head of cattle, and they are on a straight livestock economy.

I also have an illustration of a typical project that combines all benefits, stock watering, irrigation, and domestic and urban supply. That is the Swift Current project. I was living in Swift Current in 1937, and that city of 5,000 people was virtually out of water. There was no flow in the stream, and I do not believe the people realized how serious the situation was.

Today, however, there is a project there of which I have given an artist's view in the back of the brief. I will not go into detail at this time,





but through these small, individual projects we believe some 5,000 or 6,000 people have been rehabilitated right where they are living.

Looking ahead, we believe another 3,000 or 4,000 people can be given security by the development of these projects.

Now I want to say just a word about irrigation in relation to grain production. When dry land is irrigated there is a change in production practices by following a new rotation of crops; that is, one that will maintain irrigation efficiency in the use of water and fertility, and provide a more balanced income. There is usually a shift from a grain economy to a livestock economy. In some cases this shift has been slow but circumstances, such as lack of credit and the type of contract with the farmer, have prevented a quicker change.

The impression is often given that irrigation development will increase wheat production and add to the wheat marketing problem. Such is not the case. For example, on a 120-acre irrigated farm there would be only 12 acres of wheat each year. On a dry land basis the 120 acres on the average would produce 1,200 bushels of wheat. Under irrigation there would be 500 bushels of wheat. Then it might not find its way to market but be fed to livestock. Wheat is an efficient feed for finishing and fattening livestock and poultry. Continued wheat growing under irrigation would soon result in low net income because it would be necessary to fallow for wheat



control, and the water rates would be too high.

Then just a word about improvements to occupied farms and the relation to unoccupied lands. On occupied farms that will be growing grain, reference has already been made to the dry land farming practices and better methods of cultivation. Some reference should be made to those areas in the brown soil zone where grain farming results in low income in dry years. The trend at present is for some of these areas to obtain a more balanced economy by a grain-grazing unit.

I might give you a particular example of two municipalities in the area I am indicating on the map. In 1939 we moved people from there to the northern areas and to irrigation districts. Those remaining continued grain farming. The abandoned farm lands were reseeded to grass and now there is a 41,000 acre community pasture serving the farmers for grazing cattle.

It required about 17 years, up to 1952, for these farmers to acquire 2,000 head of cattle, mainly because there was no credit with which to buy cattle. With the better grain crops and prices since 1950 they have gradually used their cash to buy cattle. In June, 1955, the farmers in those two rural municipalities had 5,060 head of cattle. So today, after losing all their stock in 1937, most of them had built up to about 1,800 head by 1952, and from 1952 to 1955 the cattle had increased to 5,060 head, which is an indication that the farmers





themselves are thinking in those areas that they must have some balance in their production if they are going to survive the dry years that occur from time to time.

I have already mentioned abandoned farm lands, movement of settlers, and lands unsuitable for crop production. In 1938 the federal government, in agreement with Manitoba and Saskatchewan respectively, agreed to undertake the reclamation and improvement of these lands, to provide facilities and to maintain and operate them for the benefit of the remaining farmers in the rural municipalities. They are now known as community pastures. One clause in the agreement stated that the area must be at least 12,000 acres before the federal government would undertake capital construction. That is why the provincial government has a number of smaller pastures.

Since 1938 some 1,696,900 acres have been reclaimed, fenced, water facilities provided, and organized and operated for farmers, mostly by farmers through their local committees. These lands which were a liability in 1938 today are an asset, grazing 110,000 head of cattle for 7,000 farmer patrons in 1954. The public investment made by Canada up to March 31, 1955, has been \$7,273,013. The revenue received to March 31, 1955, has been \$3,481,367. I would expect this investment could be written off in 25 years. If the land were sold now at \$2 per acre, the investment of the federal government would be cancelled. The main benefit, however, has been that these pastures have provided a means to grain farmers to bring some balance to



their grain-growing operations.

The main point I wish to discuss is that further improvement in the carrying capacity of these lands can be made during the next 25 years. We have also already started on a programme, and there is no reason why in the next 25 years we cannot double the number of cattle we are operating on these pastures. The pastures may not serve many more patrons but the increased numbers of cattle or sheep will provide a much better balance to grain farming.

There are still large areas of unoccupied land in the three prairie provinces where a similar improvement programme can take place. It is true that much of the land is outside of the P. F. R. A. area, but there is every reason to believe that policies could be formulated between the provinces and the federal government. I believe that such a programme would return dividends on a public investment and reduce some of the uncertainties in grain production. It would also assist those farms in the black and grey-wooded soil zones where farm units are smaller and where increased income can result with the same overhead.

I might give you an example of that in the area I am indicating now on the map. A delegation representing two municipalities, in which there were 200 quarter section farms, came in not long ago. They said they themselves could not provide community pastures, and they did not know what they were going to do. We have agreed to go along on a programme of improving and clearing lands and reseeding them.





We are making quite an investment there, but we expect that investment to be returned in revenue over a period of time; and the same applies to the black soil zones.

In conclusion I have a few general comments to make. My presentation so far has discussed production. I have not adhered to provincial boundaries but to climatic and soil zones. I have been optimistic in most of the comments made, but experience in the west leaves no other course for one to follow. If we are to look ahead 25 years, then some of the principles and plans enunciated must be considered.

I recognize that there will be many problems. I have not discussed markets -- that is a brief in itself -- nor have I discussed the industrial use of primary products. Other questions arise: why a public investment in the land and water resource development; the position of the farmer in the development picture, and so on.

The reason I make that comment is that many times in the press the St. Mary irrigation project has been said to be costing the governments so many million dollars. Compare that to the farmers' investment in equipment, land, improvements, buildings, and so on, in order to make use of that land, which I am sure would amount to over \$50 million.

Among the other questions are better credit facilities, with long-term loans for long-term planning; follow-up programmes in education and extension; maintenance and operation of irrigation projects, and so on. We know there must be efficient and proper use of water, and we also know there must



be a follow-up programme to see that the right things are done with the land. We must also see that the principal payments on the land are kept low for a period of years, which I think follows the experience of all such projects in the United States.

Then there is the question of the relationship between municipal, provincial and federal governments. Just on that point I noticed something in the brief presented the other day by the Manitoba government; and I refer to the Riding Mountain area. We have a two-way agreement with the Manitoba government, and it has an agreement with the municipal government at Dauphin. As two governments we go in there, and we have constructed capital works, which the municipality is to maintain. I have viewed the whole picture, and in my judgment it is almost an impossible task for that municipality to maintain those capital works. In the first place they are not qualified to do so, and the cost to the people is heavy. So any capital works that are put in a municipality must be very carefully considered from the point of view of maintenance, and all the way through our work we have endeavoured to see that any capital works we build are permanent, so there will be low cost of maintenance and operation in the future, out of consideration for the man who is buying that water and paying for it. His payments must be low if he is going to have reasonable returns.

Of course that brings up the prevention of speculation in land following state expenditures. We have already done that in our projects and it has





worked out satisfactorily so far. I am told that the legal provision we make is not enforceable, but we have been doing it for 20 years and it has worked.

Then there is research and education; co-ordination of engineering and agricultural professions, and many other factors that would influence planning for Canada's economic prospects.

Much has been said and will be said about conservation of the resources. It is rather a loose word. Conservation is a part of agriculture; that is, we must conserve the water and land resources to be used by the people so their economic welfare is preserved and maintained. It is all part of the rehabilitation of people, the improvement of farms for a better standard of living. In simple words it is better land use.

THE CHAIRMAN: Thank you, Dr. Thomson. With your approval, I would suggest that before we ask you questions we have a 10 minute break, as we usually do around this time, to give the reporter a chance to ease his hand.

---Recess.

---After recess.

MR. STEWART: I have a question arising out of a statement at the bottom of page 31, Dr. Thomson, of your brief. I am not sure whether Dr. Thomson will wish to elaborate on this, and he can say so if he so feels. However, there is a reference to policies for extension of these activities outside the area defined for the operation of the P. F. R. A., and this obviously ties in with the suggestion which has been made to us



from time to time about a national conservation programme. I wonder if Dr. Thomson would like to indicate how he thinks we might proceed toward a nation-wide conservation organization and programme.

MR. THOMSON: At the outset of my remarks I said I thought we should work toward a conservation programme, and I believe at the present time the governments have possibly received resolutions from every municipality in Alberta, Saskatchewan and Manitoba bordering on the P. F. R. A. area. That is why in 1947 Hon. Mr. Gardiner made the statement in the House of Commons that the government would consider provincial proposals outside the area, and that has been done.

Then the work was extended to the maritimes, where there was a problem in connection with the marshlands around the bay of Fundy. We made special reports on that, and work is being done there under the Maritime Marshlands Reclamation Act. It is a special act which was put through parliament for the protection and reclamation of lands.

Then there is a programme on hand in Newfoundland this year. There have been one or two projects in Ontario, and in British Columbia. When the ministers of agriculture met in the maritimes this summer they also recommended the extension of this work. So I would think that as a result of our experience we are moving toward a national act or national programme of conservation; and I would think we would have had enough experience at the present time to know how to proceed. I could also refer you to where this has been given consideration by





the Agricultural Institute of Canada, with respect to a conservation act, and I believe that consideration pretty well embodies what most people are thinking.

THE CHAIRMAN: Instead of an extension of the area northwest in the three prairie provinces, you think it might extend throughout the whole country?

MR. THOMSON: Yes. Of course that is a matter of government policy, and as a civil servant I do not make policy; I just try to carry it out.

MR. STEWART: Thank you. On page 25 you have a reference to the potential arable farm land not presently occupied, and you estimate that at 12 to 13 million acres, of which approximately five-sixths is in Alberta. You would not expect the 12 to 13 million acres to be settled in the next 30 years, would you?

MR. THOMSON: No, I would not expect that to happen. It would depend upon what public investment is made, because in the settlement of those lands a great deal of difficulty is encountered in connection with land clearing and equipment to do the job. I may say we have that figure from the soil survey people in Alberta, but I would not expect it to be settled in 30 years. It would require a big investment, both by the governments and by the individuals.

MR. STEWART: In the brief of the province of Manitoba, they suggested that there were 5 million acres of additional arable land in that province.

MR. THOMSON: Yes, but according to the soil survey of the clay belt north of The Pas, I understand it is 4 million; and a substation is being started up



there at the present time to determine if it has development possibilities.

MR. STEWART: You have not included as much as that in your 12 to 13 million acres?

MR. THOMSON: No, I did not include that at all. I referred to that as an area of wooded land in northern Manitoba that has possibilities of settlement. I thought possibly Manitoba would deal with that.

MR. STEWART: There is a reference further down on the page to the cost of bringing woodland under cultivation. Have you any actual figures on that?

MR. THOMSON: Which is that?

MR. STEWART: There is a more general reference to the comparable costs of the development of land through irrigation and clearing wooded land. Have you any figures with respect to the cost of clearing wooded land?

MR. THOMSON: I can give it from memory. The cost of the St. Mary project, with the distribution system, will amount to between \$50 and \$60 per acre. That is the cost to the Alberta government at the present time, including the reservoir. The cost of clearing land varies from \$50 to \$75 an acre, and sometimes more, depending upon the state of the wooded area.

MR. STEWART: That sounds to me like a high figure.

MR. THOMSON: For clearing land?

MR. STEWART: Yes.

MR. THOMSON: No, that is not a high figure, \$50 to \$75 an acre, with the present cost of





equipment. Mr. Beamer is here, and he looked after all the land clearing work in British Columbia, and I think that figure is about correct.

MR. STEWART: Any experience I have had with clearing land in British Columbia indicated a cost of a thousand dollars an acre.

MR. THOMSON: I was referring to the area west of Prince George.

MR. STEWART: One other question, and here I am not interested in the legal aspect at all, but I am interested in this problem of land speculation, as you use the term. My first question is, if you have more applicants for irrigated land than you can accommodate, what is the process of allocation?

MR. THOMSON: The policy on the Bow river project, which the federal government owns, is that we are only taking those settlers from areas that require rehabilitation, and joining community pastures where we have a policy of exchange of land. They all apply and move voluntarily, and when they go on that land, say an irrigation section, we have an agreement of sale with the individual under which we exchange the land. We sell him the water right; we sell them control of the water, and that water must be assigned by permission of the government. If the government believes that an individual who has been there for 3 or 4 years sells that land say at \$100 an acre, including the water rights, then to make that assignment it is \$60 an acre.

Then on projects we started in 1935 in southwestern Saskatchewan the government has never



accepted the last payment. Those payments were made over a period of 15 years, and we have never accepted the last payment in order to retain control by holding the title. That was the policy that was followed in Montanna, and it has worked very successfully.

On projects operated by the Alberta government they have a policy of the selection of land by an advisory committee which they have appointed to select applicants, similar to the V. L. A., and they have been very careful in their selection.

The agreement between Canada and Alberta is that they will give priority to farmers who must be rehabilitated.

MR. STEWART: On page 33 you indicate that markets will have to be found the expanded production which you foresee. We appreciate that you have in mind that there will be three processes of expansion; better farming practices, increased efficiency, and development of currently operated dry land; there will be irrigation development, and there will be the addition of new lands.

MR. THOMSON: Yes.

MR. STEWART: Markets do not increase in big jumps overnight. That will be a gradual process if there is a steady expansion of markets. How do you time these things, where a very large investment is necessary in order to get a project going? How do you time that in relation to the market needs for expanded production?

MR. THOMSON: Well, of course, at the present time our need is rehabilitation, to get people living with a decent standard of living. But we do give





some consideration to markets; and as 90 per cent of the land in southern Alberta is on a livestock economy, we feel very optimistic about the future of the livestock market, particularly cattle and sheep. At the present time we are consuming 94 to 95 per cent of the beef we raise in Canada.

Then there is our position with respect to the United States. Our exports of cattle to the United States are growing smaller each year, as you will notice in the provincial brief which was presented yesterday. Well, the population of the United States is growing by 2 or 3 million people a year. At the present time their peak in cattle production is about 81 million head, and the gap between consumption and production is narrowing in the United States all the time. I believe we are sitting in a pretty strategic position to supply that market say in 15 years. It will take us 15 years to increase our cattle population to get to that point, but I believe now is the time to start to get ready.

I would venture to say that southern Alberta today is one of the most flourishing livestock centres in Canada, supplying the Vancouver market with good beef; and there is no reason why we cannot increase that market right across Canada. Instead of shipping steers to Toronto at a cost of 2 to 3 1/2 cents a pound, shipping all that waste product down there, looking at it from the industrial point of view or the industrial use of a primary product, we should possibly be getting to the point within the next 15 or 20 years in western



Canada where we are shipping beef instead of shipping live animals.

As you know, the subsidy which is paid on grain going to Ontario and Quebec is also a cost to the country, and I think we should find ways and means of bringing P. F. R. A., or the conservation work, and P. F. A. A. and the subsidies on grain all together in a sound policy which will lead to the development of meat products out here.

MR. GRAUER: With respect to soil moisture, has there been a sufficient history, with records maintained, to observe any pattern in the dry and wet years?

MR. THOMSON: We only have rainfall precipitation records from about 1886 in the centre of the prairies here where I am indicating on the map, at Swift Current and other points.

The soil moisture investigation work was started in 1921, and the purpose of that work was to find the best cultural methods, or methods of soil cultivation that would serve to conserve the most moisture.

That work is pretty universally accepted. The extension and educational services use that information, but we know that these are some of the principles that have been discovered. It takes one inch of water to produce two bushels of wheat. We know that wheat uses less moisture than any other plant. If you only get 6 or 7 inches of moisture during the season, all other things being equal you can raise 14 bushels to the acre; but if you want more than that, there is a moisture





deficiency. We know we can save more of the rain in the fall than in any other period of the year. We know that in a dry year we can only conserve about 5 to 10 per cent of the rain that falls. In a reasonably good year, say with a little better than average rainfall, we can conserve up to 50 per cent, and then if you get a dry year the next year, you have that reserve to carry you over.

MR. GRAUER: Do the dry years and the wet years tend to go in sequence?

MR. THOMPSON: No, there are gradual changes; but man cannot determine those changes. There has been some reference to cycles, but those of us who have studied climatic records for a period of time, and the meteorologists in the United States who have studied them, cannot determine any such thing as a cycle. We do know there are changes.

MR. GRAUER: It is a short-term proposition?

MR. THOMPSON: Yes.

MR. GRAUER: Would it be sufficiently short-term to balance up as between surplus producing years and sub-par producing years?

MR. THOMPSON: No, we would not have sufficient information to do that. Despite the many forecasts that are made, all the meteorologists still tell us they can only forecast what is going to happen about 48 hours ahead.

We do know that if we have a good reserve of moisture in the fall of the year, say 4 feet down into the soil, we are pretty well assured of a crop. If we have not any reserve moisture in the soil in the fall of the year, unless we get rains in June and July there



will not be any crop. That is what happened in 1936 and 1937.

MR. GRAUER: Regarding community pastures, is it ~~any~~ part of the programme to sell back that type of land to community farmers?

MR. THOMSON: No. We have had many applications to break up that land again, but the federal government has been adamant about letting any of that land go back into cultivation.

MR. GRAUER: And there is no selling back for pasture purposes either, with that restriction on it?

MR. THOMSON: We do not sell back any of that land. If we did, by agreement with the province it would go back to the province.

MR. GUSHUE: Referring to the grey soil area, which you mentioned, is that the area largely from which the province would expect commercial exploitation of the timber resources?

MR. THOMSON: I really cannot answer that question. There may be some commercial timber resource in that area.

MR. GUSHUE: You do not know the type of timber, and so on?

MR. THOMSON: Mostly poplar, I believe, and the evergreens; spruce and so on.

MR. LUSSIER: What would be the average size of the farms in these irrigated areas, taking into account the increased production?

MR. THOMSON: The average size of the farm





on which we have settled these people, in the project the federal government owns, is around 140 acres. In the other irrigation districts it varies; some are more and some are less. Where there is a livestock economy it is more.

MR. LUSSIER: So it is a family farm?

MR. THOMSON: Yes.

THE CHAIRMAN: Well, thank you very much indeed, Dr. Thomson. This has been very helpful to us and very interesting. We are most grateful to you, and also to your associates who I am sure helped in the preparation of these submissions.

MR. THOMSON: Thank you, sir. I forgot to mention that our organization will be very happy to assist your staff with any information they may wish to obtain.

THE CHAIRMAN: Thank you very much; we may take you up on that. Now I call upon Mr. Olaf Turnbull, of the Saskatchewan Farmers Union.

MR. LePAN: I wonder if I might say a word. Through some accident it appears that the copies of the brief which were submitted to us by the Farmers Union have been mislaid. I wanted to make it clear that it is not the fault of the Farmers Union that you have not had the brief before you in advance of this presentation. It is our fault, through some oversight, and not the fault of the Farmers Union.

THE CHAIRMAN: Thank you. Then we will label this submission as Exhibit 39.



MR. TURNBULL: Mr. Chief Commissioner, with your permission I shall not read the entire brief, even though it is rather short, because I notice that the hour is getting late. I have been watching you in your ordeal of having to sit here for long periods of time, and I know you must feel cramped. I would like, however, to read certain sections that I feel are particularly pertinent.

As to the nature and function of the Farmers Union, of course we are mainly concerned with agricultural policy. We feel that to dissociate policy, or the desires of people, from straight economic questions is perhaps to put the whole situation where it is not entirely realistic, and certainly the two do go hand in hand.

We also note, of course, as you gentlemen undoubtedly have also noted, that methods of projection are but very limited and rather crude. As far as we know there is no dynamic method by which you can forecast this generally straight lineal projection of the present position; but having said that, we go ahead and make a straight lineal projection.

Of course in our projection we make certain basic assumptions, and what we are attempting to do is envisage what we think the position of agriculture might be some 25 to 50 years ahead. The assumptions we make are as follows:

1. No major war, but the same level of defence spending.
2. No major change in government policies,





the economic climate remaining much as it is now.

3. The same general level of climatic conditions in the prairie west as the last 50 years.

4. Further technology will be forthcoming both complementary and competitive from an agricultural point of view. On this we have no particular data, but we assume there will be great strides in that direction.

On page 2 we note that the policy with regard to the west in general was designed from the point of view, we believe, of commerce and investment; and in order that the prairie west might be opened up, we note that there were some basic requirements that had to be met. They were: (a) a trans-continental railway; (b) a national policy of protective tariffs to protect Canadian industry from foreign competition, plus (c) the land policy of the homesteading era.

Of course with these policies you had to have a group of people, the courageous and hard-working pioneers who made themselves available to the opportunity, and the rather interesting development of a high quality hard wheat, which became the leading earner of foreign exchange, which gave further impetus in the general direction of the opening up and development of the virgin resources that lay here.

We now believe that this era has passed. We think the focus of investment in the west is no longer primarily concerned with agriculture but with industrialization, and of course with development of the pre-Cambrian shield.



This, we think, leads us to our present position in which the position of investment, together with the subsidization of wheat by former importing countries, perhaps for their own political rather than economic reasons, has put the Canadian wheat growers in what we claim to be a rather severe price squeeze.

Relative to the rest of the economy, of course, agriculture is in a state of decline, and we feel that Canadian domestic consumption is certainly insufficient to absorb present grain production. In addition, the west does not have sufficient political strength to obtain any special protection in the form of anti-disaster policies; and this brings us to the point where we endeavour to project what may be the rather difficult future of western agriculture.

For the purposes of our analysis we have endeavoured to put it on the basis of a short-run period of about 5 years, and we then endeavour to project 15 to 20 years ahead. Of necessity, of course, our conclusions must be broad. We have deliberately refrained from getting involved in fixed sums or definite references to amounts, for the simple reasons that we fail to see how they can be measured. They can only be estimated, and it requires perhaps as much shrewd guesswork as any other faculty we may have.

In the immediate future it is fairly obvious that the western wheat producer is going to try to shift into areas of production which will be





more free-moving. This will lead into cash crops such as flax, durum wheat, rape seed and things to which the farmer can shift his production most readily.

We think there will be some initial steps or some acceleration of the present trend of getting into livestock production, which of course involves regrassing; but those things will take more time. The average farmer is primarily interested in getting an immediate cash crop on his farm, and the farmer has been put in the position where he does not have sufficient capital at his disposal to get into any long-range change of production. He must do it by stages, and the first thing he must do is provide sufficient capital to carry on this type of development.

Further, we do not think there is going to be any decrease in production. Rather farmers will tend to increase their production, particularly of wheat, because as you know there is a natural advantage in the growing of wheat in the west. This is the only way the farmer can hope to meet his rather high costs, particularly on a modern, mechanized farm.

Therefore again, with reasonable climatic conditions, we feel that wheat production will increase. At least farmers will do their best to increase the amount of wheat they sow and try to increase the yield, which of course will aggravate marketing conditions. Also, of course, it will continue the present position of the western farmer, which is that he does not have too much available cash at the end of his crop year, and he will be faced with a large volume of wheat



remaining on his farm. But after all, the reason farmers are in the business of agriculture is to produce, to make their farms produce more every year, with not too much money with which to operate. In the event that the weather takes a turn for the worse, of course, and we have a drought, certainly the marketing problem in connection with wheat will decrease, but the financial problems of the farmers will be increased.

Also throughout our whole projection we envisage a gradual increase in the size of farms. I do not think there is any doubt but that the impact of technology and mechanization is going to increase the size of farms, particularly in what is known as the semi-arid wheat growing area of the southwest, the light brown soil area.

Within the immediate future there is one fact which should not be overlooked. That is that there is a period of transition between homesteading generations and their successors. Of course this has been partly met, and younger farmers are endeavouring to get into the farming business. The V. L. A. has been particularly successful in this regard; but what we find is that the children of a not too successful farmer, perhaps because of the small size of the enterprise, will not stay in the farming business, because there is no room for them. They will endeavour to obtain more congenial lines of employment. Then when the farmer comes to retire he finds that his children are already established in some other lines of work, and of necessity the farm passes into the hands of neighbours, generally increasing the





size of their operations.

We also envisage a gradual lowering of the price of wheat at the international level. Fundamentally I guess the only price you can charge is that which the buyer is willing to pay; and I fail to see, as I think our organization fails to see, how you can get any further than that. With the increased stocks of grain on hand I believe it is fairly obvious that it is not going to be a seller's market.

Our next phase of attempted projection is what we consider to be the immediate run, from now and including about the next 15 years; and as we project into the future of course things become more obscure and more subject to error.

We estimate that prices will remain at incentive levels, and of course we envisage some continued western industrialization. Any marked increase in industrialization we feel will be primarily in the east; but the combined effect of gradual lowering of farm prices and shifting of population into the urban and industrial areas, plus an industrial growth, could begin to produce some shift in western agriculture as we now know it.

This we feel will be along the following lines. We feel this will be the greatest period of the increase in size of farms in the semi-arid area. This we feel will be because (a) the transition of the original settlers and their successors will be complete, and of course smaller farms will be squeezed to the point where they will be put out of any particular



line of production, except where they may become subsistence farms. Those unable to meet the costs of mechanization, or to use it efficiently, will be joined to larger units.

I think the same forces that will lead to this trend are essentially the ones outlined in our short-run forecast; more attractive lines of employment in industrial areas, with perhaps a more attractive way of life, with more amenities, and one other thing that I think should not be overlooked; that is, that the rural youth will have a chance of observing industry at first hand.

Fundamentally I think the farmer has always looked upon himself as being the guardian of a hoary and ancient tradition of agricultural production. Much has been said about the farmer being the salt of the earth, and so forth. But I think the younger farmers of my generation are more inclined to look upon themselves as straight businessmen, and we must avail ourselves of our best opportunities. So we do not envisage any policies that are going to be shaped to benefit any particular group that cannot be accepted by the other groups within Canada.

There is another factor which will enter in here, and that is the matter of capital. It is obvious, of course, that the larger farmer will be in a better position to acquire and use capital efficiently than the smaller farmer, who is at a terrific disadvantage.

There is another factor as well. That





is, there is a trend on the part of the younger farmer to use better business methods, and thereby endeavour to increase his marginal development.

I would like to make mention here of something I know will be of interest to you. The area in which I farm is Kindersley, which, if I may use Dr. Thomson's map, is about in the district I am indicating. Primarily it is a wheat-producing area, although there is a shift now to livestock to a certain extent. The farmers there, under pressure of two forces -- (a) the price squeeze and (b) the continued spur of income tax -- decided that it would be to their advantage to form some type of club or association, which they have called the vocational farmers' association. This is organized on a school unit basis. They availed themselves of abandoned rural school houses, and they have hired a farm management expert who gives them classes in the techniques of farm management, accounting methods and so on. Certainly now for the first time farmers in that area have been able to assess their costs of production, and they are able to determine whether or not they could shift into other lines of production, because they have some comparisons to guide them.

If I may give you some statistics which they have uncovered, I think you may find them interesting. The survey, which they are continuing, has been started as of 1953. Therefore it is painfully inadequate; but even so, it gives you some idea of the situation in that particular area, and may therefore be a sample of that type of farming.



They have divided themselves into small, medium and large farms, a small farm being classified as up to 480 acres, a medium farm up to 960 acres, and a large farm over 960 acres, the bulk of the farms being in the medium class, 480 to 960 acres.

The results they show are what you would expect. There is a straight decline of total cash farm receipts, the small farm declining from a high in 1953 of \$8,345 to \$5,396 in 1954. The records are incomplete for 1955, but I was talking to the group and they estimate that their total cash farm receipts would be about \$4,000 for this year, which of course indicates a tremendous drop in total cash farm receipts.

For the medium farm the high in 1953 was \$12,263, dropping to \$9,657 in 1954 and with an estimated figure for 1955 of \$7,000. For the large farm the cash receipts in 1953 were \$29,446. These dropped in 1954 to \$16,260, and the estimate for 1955 is \$13,000. It is obvious that the large farm takes the biggest drop. That does not mean that farmer is in the worst position, however, because his net may be of such proportion that it has some economic significance.

The net cash farm income, out of which farmers pay their living expenses, clothes, recreation, interest on notes and so forth, was as follows: for the small farm, \$2,666 in 1953, \$2,119 in 1954 and it is estimated at \$1,500 in 1955. It is fairly obvious that a farmer with 480 acres is going to have a very difficult time providing a living and meeting his interest payments on \$1,800.





For the medium size farm the figure in 1953 was \$4,067; in 1954 it was \$3,391, and the estimated figure for 1955 is \$3,000.

For the large farm the figure for 1953 was \$9,721; for 1954 it was \$6,770, and the estimated figure for 1955 is \$4,700.

One other set of figures will be of interest to you; that is the costs of production. With an average yield -- this is an actual record of yield these groups had -- in 1955 of 33 bushels of wheat to the acre, they arrived at a figure of 78 cents as the cost per bushel, with no allowance made for salary or managerial ability. If they allowed \$3,000, which is an acceptable farm management figure, it would raise the cost to \$1.17; and that year we got a price of \$1.26 plus 10 cents plus 6 cents, or a total of \$1.42. About 25 per cent of the farmers showed a net loss. About 30 per cent earned no salary, and the balance were in the clear.

MR. STEWART: Have you had the final payment on the 1953 crop?

MR. TURNBULL: Yes, but not on the 1954 crop. In the following year, 1954, to which you have reference, because of rust and the subsequent lowering of yield, and of course because operating costs are fixed and there is no way the farmer can overcome them, the cost was \$1.16, allowing no salary, or \$1.60 allowing a salary. By and large that wheat graded No. 3, which had an initial payment of \$1.15, and there has been no further payment. Of course that year about 80 per cent



of the farmers showed a loss.

Perhaps I have gone into a little more detail on this than I should, but I wanted to let you know that here is a group of farmers who have taken a distinct step in tackling the problem of the business side of farming, and I would expect that as a result of that some farmers are going to be in a position to decide that farming is not for them, because they can never hope to get out of their present position. Therefore they will endeavour to shift, and we think this will be an accelerating factor.

We also envisage that there will be a spread of this type of thing across Saskatchewan, which points out one need; that is a continuation of co-operation between provincial, federal and local governments, particularly with regard to grants that might be used in furtherance of this type of education, because certainly any help that can be given to local groups who show initiative in more efficient farming will be to the benefit of all of Canada.

There is another thing that we would think would be quite well advanced in this period, and that would be a trend toward diversification, particularly with regard to livestock. The domestic market appears to be strongest in its demand for livestock products. Where this is feasible we believe you will see an increase in the total volume of output.

This, of course, in part will be due to better feeding methods and better types of management.

I think we might also mention one other





problem that has been mentioned before, and that is the problem associated with a sparse population to begin with, and which is going to grow even more sparse.

There are the social problems involved.

There is another situation which must be recognized, and that is the matter of responsibility. Whose responsibility is it to assist farmers to shift not only from one line of agricultural production to another, but let us say from agriculture into another line of employment entirely, where an individual is forced out of production primarily because of technological displacement, and the individual himself makes no contribution in that regard except as a taxpayer. Certainly he bears some share of the responsibility, but I submit and our group submits he does not bear the full responsibility, the problem there being a very difficult one. We envisage a policy of directing such individuals, without dislocating them to the extent that they cannot be used efficiently in other lines of employment. We do not want to have too rigid a type of policy.

We also agree, of course, with what has been said as to agricultural intensification in the west depending upon the establishment of irrigation areas such as the South Saskatchewan river dam. There is also one other type of intensification that might be mentioned. That would be drainage areas around cities and industrial areas where there would be a demand for certain types of crops.

Therefore I suggest that we summarize what we envisage as to the trend in farming.

1. Number of farmers will decrease, due to technological displacement, and perhaps we can add



lack of capital resources, the position being such that present policies do not place a sufficient amount of capital at their disposal.

2. Increased populations in industrial areas of Canada will reflect in greater domestic demand for food.

3. Size of farms will increase, with average semi-arid grain units reaching 3-5 sections.

For your information, I know of farmers in my particular area who are farming 4 sections of land with one operator. They have a large caterpillar type tractor pulling two discers, a discer covering a width of 15 feet, which is a total of 30 feet, and being able to cover 160 acres a day. This gives you an idea of the possibilities of mechanization.

Another way you can compare it, is in the number of man months. In the original pioneer state I imagine it would take about 24 to 28 man months to handle 500 acres. Within my time that has been increased to 2,400 acres, using 26 man months. If the operator is very efficient and has sufficient capitalization I think he could do it in 16 man months.

Now we come to the conclusions. Policy is the key force that determines the use of resources. In light of our basic assumption of no major change in basic policy in the next 50 years, our conclusions regarding agricultural potential fall into the following headings:

1. Increasing effective demand could ultimately overtake production, but the rates of





development are such that agriculture's position relative to the rest of the economy will continue to decline.

2. Total animal production will increase, possibly around 75 per cent by the year 2000. Grain production should increase 20 per cent, using 1935-39 as an average, and I think those figures are conservative and are deliberately made so.

3. Size and type of farms: The size of individual units will continue to increase, the limiting factors being application of technology and managerial ability. This will result in assembly line production where possible.

4. Erosion of soils will be at an unprecedented rate, but will be offset by technological advance. Until it becomes of sufficient importance that agencies make themselves particularly forceful about it, I do not see any development in that regard.

5. Canada is going to need all her food potential. Policies must be reoriented from those employed in developing the expanding frontier to those that will meet the immediate period of conservation, and cut-back in production, successfully.

Farm union policy, of course, of necessity --and I think this is true of delegate bodies, of groups that have delegate bodies and derive policy from conventions generally, find their policy is concerned with the issue of the moment; and the issue of the moment is what are we going to do with the wheat. So we have a policy concerned with the type of support which will assist the agricultural producer and give him some degree of stability. For this particular type of brief and the



projection into the future, of course we must look further than that.

6. Of increasing importance in productivity is technological development.

We believe our analysis indicates that we can get into a position where we put undue emphasis on business considerations and economic values, and not enough on human values. Of course these are the problems. This will depend less on the individual farmer, other than his assuming his share of taxation as a private citizen, but on public funds which will continue to develop better varieties of plants, animals, machines, chemicals, and methods.

We are in a period of surpluses, because production has outstripped effective demand. Populations are continuing to increase, and the ultimate question is whether greater productivity can keep pace with increasing effective demand.

We believe that our analysis indicates that undue emphasis has been put on immediate business considerations and shortsighted economic values and not enough weight given to human values of today or for the future. The policies for development of the west were concerned mainly with investment and commerce, and their continuation in the future will lead to greater degrees of soil-mining, erosion, and insecure tenure.

The farmers of my generation are not particularly concerned -- and of necessity must take the point of view that they are not concerned -- with the





fertility of the soil for future generations. They are concerned primarily with an immediate return, and must get such a return if they are to stay in business. They will only make themselves concerned with such a conservation programme if policies are devised to assist them to take that longer view.

Now I come to our recommendations. In these recommendations, of course, the short-term recommendations are derived from farm union policy, and you are familiar with recommendations of that type. They concern advance payments on grain; increased storage facilities; activity on the part of the federal government in moving the stocks of grain which should be marketed so they will be removed from the market, where they have a depressing effect, and perhaps a broader application of the federal agricultural prices support act.

Longer range recommendations, of course, must include a conservation programme so that a farmer may be assisted in maintaining the fertility of his soils for future generations, and to encourage diversification. We would envisage the building of the South Saskatchewan dam, as a planned irrigation development.

Believing that a healthy agricultural economy is necessary to the developing economy of Canada as a whole, we suggest that a comprehensive policy should effect: (a) conservation of soil and human resources; (b) improvement of rural institutions; (c) agricultural stability.

The Saskatchewan Farmers Union proposes the following:



(b) Long-term recommendations --

1. Immediate development of a conservation programme designed to assist the farmer maintain fertility of the soil for future generations, and encourage diversification into grass and legume crops.

2. The building of the South Saskatchewan river dam and planned irrigation development to provide an area where intensive farming methods could be practised by the smaller-operating farmer now operating under sub-marginal conditions.

Of course we believe there are farmers who would rather farm in an irrigated area than not farm at all.

3. General review of agricultural credit facilities with a view to broadening credit terms to meet the special needs of agricultural producers.

4. International commodity agreements and working agencies.

THE CHAIRMAN: Thank you very much, Mr. Turnbull. I should have asked you this question at the beginning, but would you like to tell us how many members there are in the Saskatchewan Farmers Union?

MR. TURNBULL: Well, of course, membership in a voluntary association goes with relative scales of prices, and at the present time I believe there are about 45,000 to 50,000 members.

THE CHAIRMAN: Do they include large as well as small farmers?

MR. TURNBULL: Yes, they do. Possibly the bulk of them would be smaller farmers. These are





the farmers, of course, who are being pressed the hardest, and they look for some kind of support and aid.

THE CHAIRMAN: Do you find there is any difference in view, or conflict in the interests of the larger and the smaller farmers?

MR. TURNBULL: I think honestly you would have to say there would be. I think that also stems out of policy, in this regard; that the smaller farmer feels that he is unable to compete with the larger farmer. I know from press reports that this same problem exists in the United States, where a difference of opinion between smaller and larger farmers is becoming increasingly apparent.

MR. STEWART: Mr. Turnbull, would you give me your explanation of the phenomenon that for long periods of time and I think in all countries, certainly since industrialization began, farm incomes have always been lower than incomes in other occupations?

MR. TURNBULL: I expect that would be because there is a smaller percentage of the total amount of money being spent on agricultural products and more being spent on other lines, plus the fact that as this happens, then of course agriculture becomes less profitable as compared with other lines.

As it becomes less profitable, farmers tend to produce more, and perhaps that would result in an accumulation of surpluses and declining prices.

Also another factor would be the matter of costs, I would think. As activity increased in one sector of the economy, for instance activity in industry, then



investment would go in that area and prices would tend to rise. This would perhaps be reflected in increased farm costs in connection with machinery and so forth.

MR. STEWART: This type of behaviour, however, is quite different to what you find in other segments of the economy.

MR. TURNBULL: Yes. It is sometimes referred as the chronic position of agriculture.

MR. STEWART: You do not think it is chronic projecting it into the future?

MR. TURNBULL: No, I do not. I think, of course, that there never will be a time when you can have such a booming and stable agriculture that all producers will be fairly well satisfied. It will be relative to a number of factors, not the least of which is their ability, and the size and scale of operations. I think as scope and range and technology increase, quite inevitably you are going to get into more of a factory type of farm. At the same time I realize that that trend will introduce a greater degree of rigidity, in that a farmer who is geared to the factory production of wheat has no other alternative to which he can escape, whereas the type of farm that is more generally diversified has more self sufficiency.

This, of course, brings up the question of the family farm, and the definition of what is a family farm. I expect farms will continue to be family farms in Saskatchewan, but they will simply be bigger farms in the main.





MR. STEWART: When other businesses get into a squeeze they can go bankrupt.

MR. TURNBULL: So do farmers.

MR. STEWART: But they still stay on the farms.

MR. TURNBULL: Not all farmers.

MR. STEWART: I asked the question seriously. It may be that if farming gets into the kind of business proposition you are thinking of, bankruptcy is one of the means of adjustment.

MR. TURNBULL: Well, let us look at it this way. If bankruptcy is a means of adjustment, inevitably you liquidate certain farm groups. The question then becomes one of responsibility in reducing social costs, and how best these displaced people can be otherwise employed. If you envisage a bankruptcy period with individual farmers taking the full economic shock, I think that is unjust. I do not think it would be fair on the part of all Canada to allow such a condition. I believe some policy must be forthcoming by means of which these heavy social costs will be avoided.

THE CHAIRMAN: I think it is fair to say that even in industry, bankruptcy as a means of evening these things out is too harsh, and that various measures have been introduced of recent years that have made that step rather less common than it used to be.

MR. STEWART: That is precisely what I wanted to get at, that bankruptcy is one means of reducing capitalization to the point where you can carry on.

MR. TURNBULL: Of course it is. I would like to point out -- and I guess we agree on this business



of harshness, too -- that a farmer has no provision such as unemployment insurance. He has no means by which he can protect himself as he shifts production. The result is, then, that instead of shifting right out of one type into another with relative freedom, he endeavours to hang on by using up his depreciation, living off his farm and so forth. Then the succeeding generation endeavours to train itself in other lines, and in time that farm is eliminated or added to another area.

The problem then becomes one of the extent to which our policies should be forthcoming to act as a buffer to protect this individual during the transition, as well as the succeeding generation, so that transition may be brought about as painlessly as possible.

I believe reference was made yesterday to the fact that 75 per cent of the young people will wind up in the urban and perhaps the industrial areas, and this of course brings up an educational question. These individuals must get the education and gain the skills where they can be most efficiently employed.

MR. GUSHUE: In the recommendations of your union you mention the continuance of conservation policies, and you add to that, "to assist the farmer to maintain the fertility of his soil." Would you elaborate on that?

MR. TURNBULL: Yes. Farmers generally do not feel there are any adequate conservation policies. While they recognize that wonderful work has been done by P. F. R. A. in rehabilitation, fundamentally farmers regard that as an anti-disaster programme.





The question then becomes one of how the fertility of the soil may be best maintained. Farmers, being in the position they are, cannot devote 30 per cent of their farms to legumes and grass crops without suffering a loss in immediate cash return. By and large they are unable to do this.

The question then becomes to whose interest is it that this programme should be implemented, and whether there should not be some sharing of cost. Perhaps I was not too clear on that.

THE CHAIRMAN: Well, thank you very much, Mr. Turnbull. We found your submission very interesting.

Are Mr. Henderson and Mr. Moore here? I wonder if you would agree to submit your brief immediately after the recess. Would that be convenient for you? We had hoped you would come on before luncheon, but if you would not mind being first on the agenda after lunch, then we will adjourn now until 2.15.

MR. HENDERSON: That will be quite satisfactory.

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At 1 p. m. the commission adjourned.



---At 2.15 p. m. the commission resumed.

THE CHAIRMAN: Shall we come to order?

We shall now hear from Mr. R. J. Henderson of the Saskatchewan Federation of Labour, and Mr. I. E. Moore, of the Saskatchewan Provincial Federation of Labour.

MR. HENDERSON: Mr. Chairman and gentlemen, since we have filed a submission previously, we do not intend to read it.

THE CHAIRMAN: I would just like to identify it. We will mark it as Exhibit 40.

MR. HENDERSON: While we have filed this information for your consideration, we would like to just briefly refer to a couple of points that we think should not go without further discussion, or some comment by us.

First, of course, is the consideration of the job before your commission, that of trying to determine what the trends will be or should be for the next generation. Our point, briefly, is that working people, of course, have a tremendous concern in what is happening, not only immediately but what the situation may be later on. Naturally we are very interested in the work of the commission and in the report which will be submitted in due course.

The representative of the Saskatchewan Farmers Union made some remarks with which we can agree. I am referring particularly to the movement of rural population to the urban centres, in regard to which figures were also presented, outlining the changes in production on the farms. Technological advances





have made it possible for a great deal more production to be made available as the result of the use of machines, which require much less manpower. The thing which is of concern to the farming population and to the working people in the ~~urban~~ centres, of course, is the steady influx of people from the rural centres into the urban centres. It is a necessary thing; we cannot help it, but along with this is the ~~situation~~ situation of the people, the workers in urban centres in Saskatchewan, who are faced with the problem of unemployment, which is always with us. This influx of rural people, if we were unemployed, would be serious enough. We feel that things have developed which currently create a problem, and certainly within the next 20 to 25 years there is going to be a tremendous problem faced by working people, whether rural or urban.

There is the question of automation; I am just going to mention the word, because I know our parent ~~bodies~~ will have dealt with that question at some great length. Undoubtedly automation eventually will come to us in Saskatchewan, and it will bring its own difficulties. To give you an idea of some of the changes that have taken place since the end of the war I might point out, as is indicated on page 3 of our brief, that in 1946 some 11,597 employees in Saskatchewan's manufacturing ~~industries~~ produced a net value of production amounting to \$38,460,000, while in 1953 some 11,622 employees worked in the province's industries and produced in the same terms a value of \$78,159,000. So without any degree of



automation becoming established in Saskatchewan, just by routine technological advances fewer people produced in 1953 double what had been ~~produced~~ in 1946. Our concern, of course, is that unless some proper planning is done to ensure that as workers come, as people emigrate to this country, as people move from the rural centres into the urban centres, we are not faced with the problem of unemployment. The economic changes which are coming into effect are going to displace numbers of workers, and we suggest that is a main concern, as no doubt you will consider, from the point of view of any study or any recommendations which may be made.

At the outset I said we had filed this submission with you, and we felt that was sufficient. I do not know whether Mr. Moore has anything he would like to say, but other than that that is all I wish to say, or if there are any questions we will be glad to answer them.

THE CHAIRMAN: Thank you very much, Mr. Henderson. As I said a moment ago, before we reconvened, we were expecting to hear the views of both your parent organizations, which will be presented to us in Ottawa. Also, as I have said, on a number of occasions both the C. C. L. and the Trades and Labour Congress have been good enough to undertake objective studies for the commission, on which their staffs are working, for which we are very grateful indeed. Thank you very much.

Now is Mr. Goos here, for the city of





Prince Albert and the Prince Albert Chamber of Commerce?  
If not I think we might label the submissions which  
have been sent to us by the council of the city of  
Prince Albert, and the brief of the Prince Albert  
Chamber of Commerce as Exhibit 41 and Exhibit 42  
respectively.



The next matter on the agenda is the submission of the Saskatchewan Wheat Pool. If Mr. Wesson and Mr. Cameron would like to proceed with that, we are looking forward to hearing from them. We will mark your submission as Exhibit 43, for the purposes of the record. Will you proceed, please?

MR. WESSON: Mr. Chairman and members of the commission, I am very sorry that we were not able to give you a copy of the submission until late this morning. I had proposed in the first place, if there had been time for you to digest all the things in the brief, to just skim through it very quickly. However, I think I can probably make just as good time if instead of reading the report in full I merely make reference to certain things in it, and if the commission will please follow I shall call your attention to the different pages referring to what I am talking about, and I think we will get along very well.

The first page is the introduction. It sets out the stability of the organization I represent, the Saskatchewan Wheat Pool. It states that our system of operation of the wheat pool consists of 6 different divisions; the country elevator division, the terminal elevator division, the livestock division, the publicity division through which we publish a weekly newspaper, the Western Producer. We operate a flour mill in Saskatoon and also an oil seeds crushing plant as a division of the Saskatchewan Wheat Pool.

I must say that our elevator division





is very large. We operate about 1,140 country elevators in Saskatchewan and 3 terminal elevators at the head of the lakes, with a capacity of over 20 million bushels. Our handlings of grain vary from year to year. Two years ago we handled as much as 214 million bushels in the one year. The year before last it was 150 million, and the year just ended last July it was about 133 million, with percentages varying during the years anywhere from 40 per cent up to 53 per cent, depending upon congestion, where space is available for our members to use the facilities which they own.

The introduction also sets out the membership of over 100,000 and the system of election of representatives of our members or shareholders. I shall not read this, but we have yearly elections at which delegates are elected on a secret postcard ballot, once a year, and in each of the 16 districts they elect a director. That means that 16 directors comprise the board of directors. We meet once a month, for a full week every month and the 5-man executive meets as often as may be required.

We have a further contact with the country as shown on the second page, in over 1,000 committees elected by pool members, who meet and act at over 1,000 shipping points in Saskatchewan.

That in a general way is the basis of the Saskatchewan Wheat Pool. We then proceed at the bottom of page 2 to deal with the economy of Saskatchewan. We say Saskatchewan is essentially a one-crop economy. No other commodity looms as large in the economic life of this province as wheat. In the



last few years, the Saskatchewan economy has been broadening out to include oil and mineral production. There has been a substantial increase in commercial and industrial activity. In spite of this diversification, however, agriculture remains the dominant enterprise in Saskatchewan and wheat production is the dominant part of agriculture.

In 1952, for example, the net value of agricultural production in Saskatchewan was \$749 million out of a total production for the province of \$968 million. The agricultural income of Saskatchewan farmers represented 77 per cent of the total provincial income. In the four previous years, agriculture supplied from 72 to 79 per cent of the provincial income.

There is little doubt that this pattern has changed somewhat since 1952 because of the tremendous splurge, if that is a good word, in the gas and oil development, minerals and all that sort of thing, about which you probably heard from representatives of the provincial government. In all probability since 1952 up to the present time agricultural commodities must be away down because of that development, plus the fact that our income has been reduced considerably, as the brief will point out later on. That is the cash income has been reduced tremendously.

However, agriculture, for a long time to come, appears likely to be the dominant economic interest of Saskatchewan people.

In Saskatchewan agriculture, wheat and other cereal grains overshadow the production of other





agricultural commodities. The nature of the Saskatchewan climate and the distance from this province to metropolitan markets are two of the conditions which have given wheat and grain production its importance for many years in the Saskatchewan scene.

On page 4 we set out a table showing the farm cash income in dollars representing the different commodities, and I shall just mention one year, 1953. Income from wheat was \$507.3 million; from coarse grains and flax, \$101.2 million; from livestock, \$78.9 million; from poultry and eggs, \$18.8 million; from dairy products, \$22.6 million, and from miscellaneous products, \$14.5 million, which shows that the income from wheat through all the years has rather predominated as compared with the income from any other commodity in Saskatchewan.

Then in the table below, on the same page, the percentage of the total is computed. On page 5 we set out a long story of the acreage in wheat, oats and barley in Saskatchewan, starting in 1911 and coming up to the present year, 1955.

I want to make one or two comments in connection with this table. It will show that during the period of the first world war, starting in 1911, just over 4 million acres were sown to wheat. Very largely because of price incentive in those years, the latter years of the first world war, we doubled our acreage, up to 8 million acres in 1918. Then we went on to 10 million, 12 million, 13 million and up to 15 million and 15 1/2 million during the years



up to 1934, and on into the second war. In 1944, however, we had a very sharp reduction in our wheat acreage, to 9.6 million acres, again very largely brought about by the incentive method, when the federal government bonused wheat farmers to either summerfallow the land, at \$4 an acre, or sow it to grass, or to at least use the land for other purposes than the production of wheat.

At the time there was a great deal of argument as to whether or not the policy was sound. The Saskatchewan Wheat Pool opposed it, because we believed the time would come when every bushel of wheat would be needed. As time went on, of course, because of the conservation of moisture through that summerfallow year, it did create a reserve, if you will, of plant food, so that when we really required more wheat to fill the world demand at the close of the war, we were in a position where we could produce huge crops, as you will remember.

You will notice that through all the years our acreage runs reasonably consistently, from 12 million to 14 million to 15 million. I am spending a minute or two on this, Mr. Chairman, for a reason. Certain suggestions have been made dealing with the whole world wheat picture. With the United States following a policy with which you are probably conversant, of reducing acreage by reducing the incentives, such as the loans on wheat and other grain, the statement has been made that Canada should also follow suit and reduce acreage.





I am going to say, in the first place, that we never increased our acreage through the years as the United States did. We remained reasonably stable throughout the years; and because of the vagaries of nature in Saskatchewan, we believe it is futile to try to control production by decreasing or increasing acreage.

I would like to point out one year as an example, and I refer to 1937, when in Saskatchewan we sowed 14.7 million acres, which was about average for many years, but we produced only 2 1/2 bushels to the acre. In other words we produced about 30 million bushels.

Take the two years just past. In 1954 Saskatchewan farmers planted 15 1/2 million acres in wheat, and because of rust and frost we harvested 150 million bushels. In 1955 we planted nearly 2 1/2 million acres less, 13.1 million as against 15.5 million, and last year we produced around 300 million bushels, or twice the amount, of the best milling wheat in the world than we produced the year before, with 2 1/2 million acres more.

So we take the view that any attempt to control production by reduction of acreage is simply futile, because of the uncertainties of the weather and the hazards we face in the province of Saskatchewan in producing grain.

From 1941 to 1943 there was a reduction in wheat acreage, in response to pasture and summer-fallow bonusing, which I have mentioned, in an attempt



to fit wheat production into the prospective markets.

Then we deal with certain things such as severe flooding conditions which affect the seeding because of a late spring, some of which can be offset by our newer techniques in farming, which permit us to put in a crop very quickly.

The acreage table suggests that the wheat economy reached maturity some time in the latter part of the 1920's and that there has been little expansion since that date. It seems unlikely that there will be any further significant expansion of wheat growing in this province because nearly all suitable wheat land has now been occupied.

Then we proceed further down on page 6 and deal with the addition of over 5 million persons to the population, or an increase of about 57 per cent, from 1921 to 1951.

The rising standard of Canadian living, entailing the consumption of more livestock and dairy products, did not curtail the number of acres devoted to wheat production in this province. This suggests that it will take a very large addition to Canada's population to cause a shift of any great number of acres away from wheat and toward livestock in this province.

May I interject at this point that during the last number of years our agriculture has become almost completely mechanized, which simply means that our fuel for our power machines must be purchased in the form of oil and gasoline. Under the old system, with horsepower, we raised a very large volume of





cereal grain, some of which we used as fuel for our horses. Now we can use exactly the same number of acres for coarse grains, but we do not feed them to horses, and they can be used to increase the production of livestock and dairy products.

The evidence to date suggests that Saskatchewan agriculture will continue for many years to rely heavily on wheat as a major source of farm income. If this is true, then national wheat policies will continue to play a major role in the Saskatchewan economy.

Now we come to page 7, and we deal with the problem of stability. I want to read some of the paragraphs on this page, because I can do it more quickly that way.

The degree to which Saskatchewan relies on one crop exposes the people of the province to grave and unusual economic risks. If this one crop fails, or if the price falls drastically, the result is felt in almost every phase of Saskatchewan's economic life. And the one calamity or the other frequently overtakes the people of this province. When both calamities occur at the same time, as in several years during the 1930's, the result is disastrous.

The wheat economy of Saskatchewan is exposed to a wide variability in yields which is the common experience of all hard wheat areas. This variability may be illustrated by pointing out that the range in wheat yields in Saskatchewan stretches from a low of 2.7 bushels to the acre as in 1937 to a high of 26.5 in 1952. Any yield within this range is possible in



any year.

May I interject at this point an opinion which may be wrong or may be correct. There are people today who say that because of new techniques we have developed in farming, such as modern machinery, the use of fertilizer, the use of 2-4-D, which is used to kill weeds in the spring, it does not matter what happens in future, that under any circumstances we shall produce more wheat per acre than ever before. Perhaps that is true, but I would like to say that we have almost forgotten what a dry year really looks like in western Canada, and it is going to be interesting to see what happens then, in spite of all the weed control, in spite of all the modern machinery we use, and in spite of all the fertilizer we use. I submit that without rain you just lose your fertilizer, because it is not used as plant food. However, we will never know whether this statement is correct until we have had one dry year to try it out.

Personally I doubt if we will produce much more. You cannot raise wheat without moisture.

The other factor in determining the income of the Saskatchewan grain grower is the price which his principal product commands on the world market. Roughly two out of every three bushels of wheat grown in this province must find its market outside Canada. That is a conservative statement. It used to be 80 per cent export and 20 domestic consumption. The price of wheat in Saskatchewan is,





therefore, determined in an international market subject to many influences over which the western farmer has no control.

Then we deal with the combination of the uncertainty of yield and price, and how it is reflected in the income of the Saskatchewan farmer. This affects the incomes of all those other people who live in the west, who sell goods and services. Everybody is affected by his reduced purchasing power as it reaches across the whole dominion.

On the next page there is a graph which shows that starting in 1926 and finishing in 1955, the cash income from the sale of farm products in millions of dollars has varied between \$50 million and \$750 million. I would like to refer particularly to those years we have become accustomed to calling the dirty thirties. Starting about 1929, and on up to 1942 or 1943, I cannot help but comment on the change that started to take place when the wheat board took charge of wheat marketing in 1943, and this graph proves it.

I merely want to say that on paper a very large majority of our farmers in Saskatchewan were bankrupt in those years. I mean they were really bankrupt, because on paper their liabilities were greater than their assets. The average farmer did not know, because he did not know how to put it down on paper to prove it; but I have tried it out, and in all cases on paper they were bankrupt in those years, starting back from 1943.



Then on top of page 8 we have this to say.

The effect of the unpredictable changes, illustrated here, is felt throughout the economic, social and cultural life of the province. When the bottom falls out of the market or the crop fails, every rural service -- the school, the church, the agricultural society, even the curling club -- feels the effect quickly and painfully.

The net result of Saskatchewan's dependence upon wheat is to make instability of income the basic economic problem of the province for the future. I want to repeat that. The net result of Saskatchewan's dependence upon wheat is to make instability of income the basic economic problem of the province for the future.

The prime purpose of all agricultural policy, so far as Saskatchewan is concerned, must be, in our view, to minimize the causes of instability.

In putting forward the idea of economic stability for the western farm family, the wheat pool wishes to distinguish clearly between a stable economy and a static one. The two ideas ought not to be confused. There must be room in the economy for change in response to changes in the demand for farm products or in the environment in which they are produced.

Within these limits, the achievement of a stable farm income will continue to be the touchstone of national farm policies so far as the Saskatchewan farmer is concerned.

Then on page 9 we start to deal with





the marketing of farm products, and we make reference to the time the wheat pool was formed 31 years ago.

I want to read an extract from our charter, which sets out the aims and objectives, and shows the vision possessed at that time by the three prairie wheat pools, through the charter of the Canadian Co-operative Wheat Producers, the organization that joined together to sell all the wheat during the years until 1930, on a bulk basis. This is what we say:

"To be an agricultural organization for the purpose of mutual help ... to reduce speculation, manipulation and waste and all unnecessary transactions in such marketing; to increase consumption and build up new markets, and develop new uses for grain; marketing same directly and with regularity, so as to furnish it economically to the users thereof; and to preserve for the growers and the public their proper profits and economies."

That was the vision of the wheat pools 31 years ago.

These marketing aims have not changed. It has always been the purpose of the pool organization to reduce the spread between the price at the farm and the price at the grocery store.

A second test which we believe must be applied to a marketing system is the extent to which it promotes stability of prices. In the view of this



organization, stability of prices is inextricably bound up with the achievement of maximum production and, therefore, with the efficiency of Saskatchewan farms as food producers.

Then we have a small paragraph or two on livestock marketing. As I said in commencing, we have a livestock division, and throughout the last number of years about 40 per cent of all the cattle has been marketed through the Saskatchewan Wheat Pool livestock division, about 33 per cent of all the hogs and 50 per cent of the sheep and lambs.

The livestock industry apart from dairying has provided Saskatchewan farmers with a cash income of from \$75 to \$100 million annually since the end of world war II. It provides from 10 to 20 per cent of the farm cash income and is, therefore, second only to wheat in Saskatchewan agriculture.

Then we make reference to the fact that it costs a good deal of money to move either livestock or the carcasses to eastern Canada, and the fact that hogs, for instance, sell at \$4 more per hundred dressed in Toronto than they do on the Saskatchewan markets, and there is also a similar spread in cattle prices.

A more serious problem, from the viewpoint of the livestock grower, is the wide fluctuation in price from year to year and even from day to day. In a recent 5-year period, 1948-1952, the spread between the high and the low monthly average price for good steers over 1,000 pounds on the Winnipeg market was \$18.79 per hundredweight. That is a very wide





fluctuation.

During a 31-month period from January, 1951 to July, 1953, the variation in grade A hog prices at Winnipeg was \$15.51. When one considers the length of the breeding cycle in livestock production, the grower clearly stands in need of the wisdom of Solomon in planning his production successfully.

This organization recognizes that it is impractical for the livestock producers of this province to organize their own livestock marketing board because so much of Saskatchewan's production is consumed outside the area over which a provincial board would have jurisdiction. We believe, however, that it would be possible for provinces to join together under some jurisdiction to have more control over their production, so some attempt could be made to stop these wide fluctuations which leave the producer in a daze. He does not know what to produce, because he has no knowledge of what his income might be.

Then we have a few remarks on the marketing of coarse grains. We say that Saskatchewan, in recent years, has been producing from 100 to 150 million bushels of oats. This compares to the 10 year -- 1944-54 -- Canadian average production of 381 million bushels. Canadian consumption of oats runs around 330 million bushels a year, leaving about 45 million bushels, on the average, for export. The United States takes the bulk of our oat exports.

Then we have a word about barley production, which runs to from 50 to 80 million bushels a year.



Canadian production is about 185 million bushels a year. Canada exports about 40 million bushels a year and consumes the remainder at home. The major customers for Canadian export barley are the United States, Japan, Belgium and the United Kingdom.

The sales of barley and oats are pooled through the Canadian Wheat Board with prices to the consumer established by daily quotations on the Winnipeg Grain Exchange. Prices for these grains have been fairly stable in comparison, for example, to the price of rye. I mean the grain, not the rye that comes in a bottle. The membership of the Wheat Pool has repeatedly urged the Wheat Board to discontinue its use of the exchange to establish prices.

Then we make some reference to the potential market for barley in Japan. They use a certain class of barley for mixing with rice. We say that if Canada is to maintain its present share of this market, or to enlarge it, this country must be prepared to offer the Japanese and other Asiatic people an opportunity to earn dollars with which to buy our barley.

Two of our competitors for the Japanese barley market are the United States and Australia. The United States has been making exchange credits more easily available than Canada has been able to do. Japan has less difficulty in securing sterling for purchases from Australia than it has in securing dollars. Both our competitors are, therefore, in a better position in the Japanese market than we. Canadian policy, we suggest, should be designed to redress the balance in favour of this country.





Now we come to those factors having to do with wheat marketing.

The marketing of Canadian wheat is now the subject of a great debate in this country. The debate has arisen for two main reasons: because there is a large surplus of wheat in Canada and other exporting countries and because the consequences of this surplus generate very real problems in the rest of the Canadian community.

We do not wish to carry on the wheat debate in the forum which this inquiry provides. But we do ask your permission to set the record straight in some particulars.

World trade in wheat and wheat flour is substantially larger now than it was in the 1930's, and as large as it has been at any time. Average world wheat exports, including Russia and Eastern Europe, for the 5 years from 1934 to 1938 were about 642 million bushels. The best 5-year average recorded at any time prior to the second world war, was from 1928 to 1932, when exports of wheat and flour were about 808 million bushels.

World trade in wheat and wheat flour reached a peak of slightly more than a billion bushels in 1951-52. The preliminary estimates for the year 1953-54 indicated a world trade of about 807 million bushels. In spite of the difficulties which wheat exporters are having, world trade remains remarkably high.

Then we proceed to say that for the last two crop years our exports of wheat and flour have been



255 million and 252 million bushels respectively, and that this is very close to the 33 year average of 255 million bushels. That figure may not mean too much, but I would like to call the attention of the committee to a few of these things on which I wanted to set the record straight.

Canada has not lost markets in the last 2 or 3 years as the surplus has been accumulating. But we have failed to expand our markets during recent years in the way which the United States has done.

Let us look at our exports between the years 1946 and 1951. In those years we actually exported 1,248,000,000 bushels, or an average of 227 million bushels a year. That was against the 33 year average of 255 million bushels. Then, following these huge crops we produced, to which I shall refer later, in 1951-52 we actually exported 356 million bushels; in 1952-53, 385 million bushels, and then the exports for the last 2 years were 255 million and 252 million.

May I at this point, Mr. Chairman, stop to make one or two remarks on the policy of the United States in getting wheat into consumption. It is true that these extraordinary conditions call for extraordinary measures. I think your commission is probably very conversant with certain things that are now transpiring in the United States, with the tremendous carryover of stocks they have at the present time, in spite of all attempts to reduce acreage and reduce production.





It should be pointed out that in the pre-war years the United States used to export about 50 to 60 million bushels of wheat a year; in other words they were more or less on a self supporting basis, with a small surplus. Then in an endeavour during the war years to do what they could to feed hungry people, they geared themselves to produce a billion and a quarter bushels a year instead of from 800 to 850 million; and I do not think the contribution the United States made to humanity during those years should be forgotten.

Unfortunately they have not yet learned how to get back to normal. It is not very generally known, and I am putting it on the record, that while there is all this talk about the huge unsold surplus of wheat in the United States, it should be borne in mind that probably 50 per cent of that carryover is fit for nothing but livestock, and is not milling wheat at all.

What have we done in this country? It is true that the government has had some assistance under the Colombo plan; that deliveries of some wheat have been made on credit which has been extended to Czechoslovakia, to Brazil and recently to Poland, which unfortunately received some political criticism. So some things have been done by the government of this country to assist the movement of wheat.

There are people who say we ought to meet the United States on any basis they create; but the question in my mind is how could we do so. It is



obvious to the Saskatchewan Wheat Pool that the farmers of western Canada cannot afford to compete with the treasury of the United States of America; and it is a question in my mind how far the government of this country, representing 15 to 16 million of a population, can go in competing with the treasury of a country with a population of 165 million.

So we do not believe it is a question of competition to see who can outdo the other in trying to get wheat out into consumption, which some people do not seem to want. A good many things have been said as the years have gone by about getting prices down. I have a document here which my friend Mr. Cameron wrote some time ago. It is called, "Prices of wheat from 1926 to 1954" and it is in four parts. This is what I would like to call the attention of the commission to, and I will hold it up and I will also file it with you. The top graph shows the change in price levels from 1924-25, which was around \$1.70, coming all the way down in the bad thirties to 32 cents, when the average for that year was somewhere around 55 cents. There was one day, however, when the price for the best wheat in the world went down to 38 cents a bushel in Winnipeg, or 28 cents at the country elevator. Then it went up again in 1936-37 to around \$1.25 a bushel.

On the graph immediately below I want to point out that the first line is for France, and the next is for Italy. The next line, the third one down, is the United Kingdom per capita consumption;





and strange as it may seem, when the price of wheat was nearly \$1.70, the per capita consumption in the United Kingdom was about 5 1/4 bushels. In 1931-32 the per capita consumption was down to about 4 3/4 bushels, when wheat went down as low as 40 cents.

You can take the line for the world, if you wish, the dotted line which runs fairly evenly and fairly straight; and it does not seem to make very much difference what the price of wheat is; people eat no more and no less bread.

I should like to put this on record; you have probably heard it before, but I would like to repeat it. I have asked this question so many times of audiences. I asked it in Calgary the night before last at a banquet. Recognizing that a loaf of bread sells for 18 cents today, delivered at your door in Regina or Calgary, I asked this question. Those of you who would eat more bread if the price were reduced to 15 cents, please raise your hands -- and not a hand was raised. Then I proceeded to tell them that if we gave the millers wheat for nothing, the price of a loaf of bread would still be 15 cents, because there is only 3 cents worth of wheat in it in the first place. It is obvious, then, that all the talk about reducing prices to get more wheat into consumption is just a fallacy, on the basis of all the information we have been able to get.

Now let me proceed on to page 15, where we deal with what we call the wheat problem, which in reality is two other problems manifesting themselves



in aggravated form. These are the farm income problem and the trade problem.

The three western provinces which so largely depend for their prosperity on a high level of farm income make up one of Canada's major markets for the product of Canadian factories. Prolonged depression in western agriculture would, we believe, have serious repercussions on the whole Canadian economy. We do not believe that this large geographical area of Canada can remain for long on a standard of living much below that of the rest of the country without pulling down incomes and retarding development in all other parts of the country.

Then we show in a table which follows the change in income. The Saskatchewan cash farm income in 1952 was \$580,756,000. In 1953 it was \$607,197,000, while the preliminary figure for 1954 is down to \$339,331,000. The total cash income is down from \$713,298,000 in 1952 to \$473,094,000 in 1954. We are not proposing to deal with the net income, because we think it is misleading, since you cannot deal with a net income unless you deal with the inventory, and in our opinion the whole calculation is not too satisfactory.

This is a very drastic reduction. It could be borne more cheerfully if the prospects were that the trend would soon be reversed, but the immediate outlook is not good.

A part of this reduction is the result of the blockade of the grain handling facilities in





western Canada which prevents farmers from delivering the quantities of wheat they are accustomed to sell during the weeks immediately after harvest. To the extent which this is an emergency peculiar to the current season, it can only be dealt with by emergency measures.

I would like to point out to your commission that I made mention a few moments ago of the United States wheat surplus being about 50 per cent livestock feed. One of our main difficulties today in connection with our plugged elevator system is the fact that at the end of July we had in all positions -- country elevators, in transit, in terminals -- about 130 million bushels of that carryover which was No. 5 and 6 and feed, which for the time being the Wheat Board is having some difficulty in selling.

This is the position in which many thousands of farmers in this province find themselves, especially in the east and north. Where in 1954 they produced 4 or 5 bushels of No. 5 and 6 and feed to the acre, they had no carryover from the previous year and they delivered all this wheat to the Wheat Board; and because the Wheat Board were not able to clear it out, the facilities were left plugged.

THE CHAIRMAN: You said 130 million bushels of the carryover was feed wheat?

MR. WESSON: Yes; No. 5 and 6 and feed. That is only a rough estimate; the board of grain commissioners have not issued the final figures yet. Because the Wheat Board did not want this grain moved



forward it left these farmers in this position. This year they produced a lovely crop of the best milling wheat in the world, 20 bushels to the acre, but they received no money. They could make only a small delivery of wheat worth 82 or 84 cents a bushel. That was their only income, and now they have to live on nothing. That has left us in rather a bad position.

Then we proceed to make some reference to storage.

The emergency could possibly be partially relieved before another harvest by the construction of additional commercial storage at country shipping points or at terminal points. As a grain handling organization, the Saskatchewan Wheat Pool has added 16 million bushels of space in its country elevator system in the last 5 years. The construction of an additional 2 million bushels of space has been approved for 1956. Additions of this order, while very substantial from the viewpoint of a single company, make very little impact on the problem of the grain grower's immediate need for cash.

Then we point out the total elevator capacity in western Canada, including the country elevators, interior terminals, lake terminals and so on, and it all comes to 450 million bushels. If you add the total capacity of grain handling facilities in this dominion east of the lakes, the grand total is 595 million bushels. That is a greater capacity than the total of all grains produced in western Canada. In other words, normally we have enough storage space today to handle the entire crop off the farms, if we





started empty in the first place. So we do not believe any attempt to increase this storage is going to solve the problem except to a very small degree.

Then there is another thing we would like to point out to your commission in connection with the uncertainty of planning new elevator construction outside the prairie provinces, say at the head of the lakes. That is the effect which the St. Lawrence seaway may have upon the pattern of western grain movement to the markets of the world. I think that short statement speaks for itself.

Then on page 17 we speak about emergency farm financing, and we talk about the new techniques of production, to which I referred earlier, in which the truck and the mechanical loader have all combined to make it possible for the farmer to bring his grain to market much more readily than in the days of the threshing machine and the grain wagon.

This is a permanent development in the grain business. It implies that in years of normal production, much more grain will be seeking a market during the early fall months than the grain business has been geared to accept.

The development of mechanical aids in country elevators have kept pace with the farmers' ability to deliver grain quickly. The problem will be whether to try to meet this situation by providing more storage space or by evolving a permanent system of cash advances to farms to help them meet their heavy harvest expenses without seeking to congest elevator facilities as soon



as the grain is harvested. Our organization, as a result of the experience with the bad harvest weather of 1951, suggested in 1952 that some type of interim farm finance should be developed as a permanent part of the national agricultural policy. The current emergency and the long-term outlook reinforce this view.

Then we have a few things to say about carrying charges paid by the wheat board. We speak first about the fluctuating price levels, down from \$2.03 in 1953 to \$1.70 in October, 1955. It has come up a little since that time.

One of the effects of the lower price since 1953 has been to reduce the amounts which the wheat board was able to distribute among farmers by way of interim and final payments as the pools for each year were settled. The loss of these amounts has been a major factor in reducing farm income in the last 2 years.

At the same time, the large amounts delivered to each of the pools since 1952 compared to the normal exports which have been made has delayed final settlements, thereby further aggravating the income situation.

A few minutes ago I referred to our export situation. Now I would like to call the attention of your commission to the change in production, and the thing that has caused this congestion, this tie-up, which has made it impossible for a farmer to deliver his grain quickly enough to get some cash. According to the figures I have here -- I think some mention is made of this further down in different words, ~~but~~ I will come across them later -- in the years from 1945 to 1950





inclusive, we produced in western Canada 355 million bushels of wheat a year, a total of 2,131,000,000 bushels. Then take the last 5 years, and those figures are so outstanding they amaze you. In 1951 we produced 529 million bushels; in 1952 it was 654 million bushels; in 1953 it was 584 million bushels. Then there was a bad year, with a production of 272 million bushels. Then the production for the present year was 478 million bushels, or a total of 2,527,000,000. That gives an average not of 355 million bushels a year but of 505 million, which means that in the last 5 years we have produced 150 million bushels a year above normal, or some 750 million bushels in the 5 years. That is what has caused all this tie-up.

Taking into consideration the amount of our exports, which I have already referred to, and the enormous production, let us now look at what the farmers have been able to deliver. In the years when we produced 355 million bushels a year the farmers were able to deliver to the wheat board 300 million bushels a year, or 1,800,000,000 bushels in the 6 years. In the next 4 years, 1951, 1952, 1953 and 1954, we actually delivered to the wheat board 1,709,000,000, or an average of 427 million bushels a year as against the previous average of 300 million bushels.

That simply works out that while in those 6 years we delivered 1,800,000,000, or an average of 300 million bushels a year, in the last 4 years the farmers have delivered to the wheat board 1,390,000,000 bushels, as against a normal delivery of 900 million



bushels in the same period, or some 490 million bushels more. The farmers produced 750 million bushels more, but they were able to deliver to the wheat board for sale some 490 million bushels above normal, and of course a great deal of wheat is still unsold in elevators and on the farms.

The prairie farmer has been bearing the full cost of carrying his grain from the time it is harvested until it is delivered to the customer. These costs have become onerous as the surplus has piled up and as the period between harvest and final disposition has grown longer. Canada is likely to face similar periods of periodic overproduction of wheat in the future because of the variable nature of wheat growing.

I would like to stop here a moment to say this. There is so much criticism being levelled against the wheat board today that once in a while I like to give them a little praise. Those who follow the operations of the Canadian Wheat Board will remember that the 1953 crop was declared closed last April, and they had a carry-over of 122 million bushels. If I remember correctly the deliveries were somewhere around 1,390,000,000 bushels, and it was all sold except 122 million bushels. If that surplus had been sold between April and the end of July it would have simply meant that it took the wheat board 4 years to sell the deliveries it took from the producers in 3 years, which meant that there was almost a year piling up storage costs until the grain was sold. But inasmuch as in those 3 years we produced crops equal to those of a normal 5 years, we think the





wheat board did an excellent job in getting rid in 4 years of the wheat delivered to them in 3 years.

The cost of carrying these periodic over-supplies of wheat is one, the wheat pool suggests, which might be properly assumed by the people of Canada as a whole, and this is one of our recommendations. It could be accomplished by having the government of Canada assume the carrying charges on all grain left in the commercial storage at the end of each crop year. These annual carryovers are in the nature of insurance against poor harvests in the future. Since a poor harvest affects the economy as a whole, it is reasonable that the nation share the cost of carrying at least this portion of the insurance.

The price decline in wheat reflects international conditions which arise in part out of the second problem which, it was suggested above, bore heavily on the wheat economy; that is the problem of achieving a maximum level of international trade.

I meant to say a further word about the fact that the prairie farmer has been bearing the full cost of carrying his grain. We go on to recommend that the people of this country as a whole should assist in bearing some of this cost and some of this load, and I am not going to spend time at this stage in dealing with all those things that are being done in other countries in the world. I might touch on that later in the brief.

Now I come to international competition in wheat.



Canadian wheat is being sold in an increasingly tough competitive market. The Canadian farmer is competing not only against the farmers of other exporting countries, he is also competing against the national treasuries of exporters and importers alike. Almost alone, among the farmers of the world, the Canadian farmer is carrying the full burden of producing, handling and marketing his wheat crop.

Then we make reference to the United States subsidizing its exports through the 1954-55 crop year at an average rate of 74.8 cents a bushel. That is in addition to all the millions of bushels they have given away, sold for local currencies, and disposed of under the many other plans under which they have been trying to get wheat out of the country.

Moreover, it is accepting the currency of other countries in payment for large quantities of wheat, leaving a portion of the currency in the purchasing country for economic development. This policy relieves the buyer of the necessity to find scarce dollars in exchange for wheat. The United States has also given away large quantities of wheat as relief measures to aid the peoples of other countries. The United States government last year made available about \$1,500,000,000 to finance disposal programmes of agricultural surpluses. The Canadian farmer cannot compete with this kind of trading.

Let me interject here that in spite of all the things the United States have done with their low quality wheat under their give-away programmes,





because of the high quality of our wheat; because of its strength, its gluten and its protein content, we have actually been able to sell for dollars many more bushels of wheat in the world markets than the United States has been able to give away. I think that should be in your records.

The United States is not the only government engaged directly in the wheat market. In many of the European countries, wheat production has been stimulated by support prices, and also by milling restrictions on imported wheat, which ensure that the home production will be fully used. Take the case of the United Kingdom, the largest wheat importer of any country. I shall not read it in any detail, but in the United Kingdom last year the acreage was less than 2 million. It was 1,995,000, to be exact, and they produced somewhere around 89 million bushels of wheat. The average price paid by the mills over there to the farmers was \$1.63, changed into our money, and it cost the treasury of the United Kingdom \$66,800,000 to subsidize the producers of wheat grown on less than 2 million acres.

Those people who do so much arguing about getting the price of wheat down cannot understand why it is that the millers in the United Kingdom can buy wheat there for \$1.63, from their own farmers. Of course it is an inferior, soft wheat. It is just a filler, that is all; yet the total price which the British farmer receives is up to \$2.37 a bushel, while they can buy Canadian wheat, No. 1, the best in the world today, at \$2.20 laid down in Liverpool.



Then we point out the subsidies paid in France. At one time France used to be an importing country, but because of the incentive provided by government policy, under which they guarantee a price of \$2.61 a bushel, between 70 million and 80 million bushels were exported last year. That was at a cost to the French government of over \$100 million, in order to export that French wheat. Mind you, the French farmer received the money, but it cost the taxpayers in excess of \$100 million.

Then we mention Belgium, Japan, West Germany, Italy, Norway and Switzerland, with prices ranging from \$2.34 per bushel to \$3.43; and at the end we say that Canadian No. 1 northern can be bought at approximately \$2.18 a bushel.

Then on page 21 we say something about the international wheat agreement. As the commission knows, unless it has adjourned there is a meeting going on in Geneva today of the representatives of more than 50 countries, dealing with the possibility of a renewal of the present international wheat agreement. They are considering its terms, and there is a good deal of discussion as to how the present world wheat economy, with this surplus, can be solved. In that connection we say that no single country can cope with a situation like this. It requires the concerted action of all the governments interested in the production or import of wheat and wheat flour. The wheat pool, therefore, believes that it is important to keep alive the only international forum concerned with wheat problems, the international





wheat council which has been set up under the international wheat agreement.

The international wheat agreement is not a perfect instrument for dealing with the international wheat problem, but it is the best we have available. The trading arrangements under the international wheat agreement can be improved as well. It is the hope of this organization that they will be as the wheat nations gain more experience in dealing with the commodity. The pool, therefore, recommends and urges the maintenance of the international wheat agreement as a means of promoting international co-operation in a field where contrary national policies such as were developed during the 1930's threatened to reduce the international wheat trade to chaotic conditions.

In addition to the degree of co-operation which may be achieved through the international wheat council and the agreement, the Saskatchewan Wheat Pool believes that the government of Canada must continue to press for a steadily expanding world trade in all commodities, including wheat. The experience of our own flour mill export operations in Saskatchewan suggests to us that the inability of many countries, notably those in the Orient, to earn dollars is a severe handicap on the sale of Canadian wheat. Particularly at times when these nations can obtain wheat and flour supplies from other countries with a minimum outlay of hard currency. The pool, therefore, believes that Canadian trade policies should be directed to the development of an expanding world trade. To this end, it is the view of this organization that other nations should be



given increased access to the Canadian market through a general lowering of the Canadian tariff.

Before I leave the international wheat agreement, may I say that the operation of this agreement -- and it is now in its seventh year -- has been eminently satisfactory to the growers of Saskatchewan, judging from the resolutions that have been passed at various meetings. They say it has brought not only general stability in prices, but it has brought some decency into international trade. We do recognize that the ceiling is there to protect the importer against too high prices when there is a shortage of wheat. There is also a floor in the agreement to protect the seller in times of temporary, unwanted surplus. Not many people recognize that importing countries can compel exporting countries to deliver wheat at the maximum price, but that we exporters cannot make them take it. We can make them take it, however, under the contract at \$1.55, and that is our protection. The floor protects the producer and the ceiling protects the consumer.

Now we go to page 22; and I am almost at the end of my brief, sir. Here we deal with the Canadian Wheat Board.

In a world wheat situation where the kind of competition exists which was outlined above, the Saskatchewan Wheat Pool believes it is more than ever necessary to maintain the Canadian Wheat Board. The Canadian Wheat Board has served western farmers well since 1943, since it has had complete control over the sale of wheat. It has, under such exceptional circumstances





as the sale of the frozen crop of 1950, served the farmers exceptionally well.

I should like to add to the written brief that in 1950 the final payment on the sale of feed wheat netted farmers in the northern part of the province \$1.52 a bushel, and in 1952 it netted them \$1.25. One farmer said it was so bad his chickens would not eat it; and the sale of that wheat could never have been accomplished under any other system.

It is the view of this organization that Saskatchewan will continue to rely chiefly on wheat for many years to come as the main source of its income. It is our view that the governments of other countries will continue to interest themselves directly in wheat production and wheat trade for a long time to come.

It is, therefore, important to the western farmer and to the national economy to maintain the Canadian Wheat Board as the instrument of the Canadian farmer in dealing with the problems which will continue to surround the wheat business. The majority of western Canadian farmers, we believe, support the principle of wheat marketing through the Canadian Wheat Board because it has served them well and because board marketing offers the best prospect we can see for reducing the broad and damaging fluctuations which characterized the wheat market in former years.

THE CHAIRMAN: I take it you would not agree with the suggestion which was made to us in Winnipeg that the farmers are tending to think that a return to the free market might be in their best interests?



MR. WESSON: Thank you, sir; I am not too old to deal with that matter at this point. No, I do not see the evidence. I just read the newspapers. Like the late Will Rogers, all I know is what I see in the press, and we definitely disagree with what was said in Winnipeg.

Our membership represents over 100,000 farmers, of whom over 84,000 received patronage dividend cheques last year, which means that 84,000 were actually active in delivering grain and livestock. We think we know what our people want. We have not received a single resolution, in the more than 2,000 resolutions that come in each year from the country, dealing with all kinds of questions, recommending a return to the open futures speculative market.

What is it they are suggesting? I do not think in this short review, taking only two or three minutes, I will be telling you anything new, because you probably know the answer. They are suggesting a new plan now under which the farmer can have his choice; he can either deliver his wheat to the wheat board or on the open market. But they have another prop now. They are proposing that there should be a floor price to protect the farmer, which means they have not very much confidence in their own system.

Let us say, for the sake of argument, that today's visible wheat of 366 million bushels were on the open market instead of under the control of the wheat board. It is obvious that every bushel of those 366 million bushels must be hedged. Some of those hedges





would be carried by exporters who bought wheat for future delivery. Some would be carried by millers who bought wheat for future delivery; but the rest of those hedges must be carried by the general public or the general mob of speculators.

Under those conditions, who would dare say today at what level these speculators would carry the price risk on the Winnipeg Grain Exchange, if it were open? Who dares attempt to say that?

Now let us examine the other proposal. Let us say that the government does guarantee an initial price of \$1.40 today. Under this new proposal of the grain exchange, they would say, "We will protect the farmers at \$1.40." It is obvious to me that within a few days the price would be driven down to \$1.40, and from then on the wheat board would get all the wheat at \$1.40 and all we would do would be to simply reduce the price from \$1.73, for which wheat is selling today, to \$1.40, and reduce the return to the grower of wheat in western Canada.

I do not know whether those people in the grain business, who are supposed to be intelligent men, think the western farmer has no brains; that he has lived through the last 50 years by trial and error; that he has not seen market crashes before. On different occasions we have seen where a temporary, unwanted surplus has been a liability, because it has always meant a complete collapse in price. We saw during the early days of the first war, and on into 1917, 1918 and 1919, with the wheat commission and the wheat board,



where we had some stability in price levels and some protection.

The farmer has also seen what has happened in the last few years under complete control by the wheat board; and the farmer of western Canada is not dumb. He knows these things, and he will not be misled by these other people who are trying to get back to the old order of things.

The farmer knows this, that while anyone can expound the virtues of freedom and a free market -- I can do it myself quite easily -- what is the result of it? Stand today and watch the ticker. You can do it today with oats and barley. With wheat you see the price change 6 or 7 times every minute. Are they selling wheat? No, sir; they are buying and selling price risks, that is all. Maybe 5 to 10 per cent of all the trading, if all the wheat were on the open market, would be applied to the actual sales and purchases of the wheat itself. The rest is purely speculation.

I do not think the average farmer would object to speculation as such. I do not believe the average farmer would care whether General Motors stock went down a few points; he knows the price of a Chevrolet car will not be reduced. I do not believe the average farmer cares whether General Motors stock goes up a few cents; he knows the price of that car will not increased. But with the wheat market he knows that all this speculation affects the price of his grain daily, and he objects to it.





That is our answer to the statement made to you in Winnipeg.

THE CHAIRMAN: I just wanted to be sure.

MR. WESSON: Well, I hope I made it plain enough, sir.

THE CHAIRMAN: We got the general idea.

MR. WESSON: Then on page 22 we also go on to deal with the question of transportation, and on the next page we have something to say about the Crowsnest pass rates, which we in western Canada think are our Magna Carta. I do not need to go into the history of that. We think a deal was made many years ago, about 1898, and we think that should be continued to be carried out, and we should have some protection. The only thing we have left in that agreement are the present rates on grain and flour. We have lost all the rest of the things which were involved in that agreement in 1898 and 1902.

Then we make some reference to other policies. At the end of this brief I believe we are filing the policy of the Canadian Federation of Agriculture. These other policies deal with support prices or floor prices or whatever you like to call them for different agricultural commodities; not parity prices. I want to make that very clear, because there is a difference of opinion as to how much trouble the United States got into because of so-called parity prices. We in the Federation think we are fair in saying that we believe we should have some protection,



some floor prices, varying from 65 per cent to 85 per cent of so-called parity, depending upon what period you take, whether it is 1913-14 or 1926-29, but at any rate a figure at which producers will not go bankrupt if the price falls.

Then we deal with some small matters such as the question of crop insurance, which we think should be borne equally by the provincial and federal governments and the individual farmers. I hope some time that can be worked out.

Then there is another proposal for an extended programme of agricultural research by the federal government in regard to problems relating to production, farm management and marketing, and the close co-ordination of federal and provincial programmes for soil and water conservation; the intensification of irrigation and drainage problems, which I understand Dr. Thomson dealt with before noon today.

In talking to Mr. Cameron while coming up here I realized, in going through this brief just before lunch and making marginal notes, as I knew I would not have time to read it in full, and you would not have time to read it, we commented upon what you had asked us to do, to lift the curtain and look into the future for the next 5, 10, 15 or 20 years.

All I can say, sir, is this, that we are only looking into the future to deal with things on the basis of past experience, because there is an





old adage which says that history always repeats itself.

First I would say we can take it for granted that as far as the acreage in this province is concerned, we are just about at the limit of our expansion. We can say that we must continue with methods under which the marketing of agricultural products will be controlled, on a basis which will give the producer some price stability, a price that is fair to the producer as well as the consumer.

Not knowing what the trend of population in the dominion may be during the next 20 years, we cannot tell how much we can expand our production of livestock and dairy products, and the so-called essential foods. We do believe, however, that for a long number of years, in spite of all these changes which may take place and the production of the other things I have already mentioned -- the essential changes -- that in this province of Saskatchewan wheat will remain the most important source of income in our economy.

In other words, sir, for many years to come the prosperity of Saskatchewan will depend upon the purchasing power of a bushel of wheat. Thank you very much.

THE CHAIRMAN: Thank you, Mr. Wesson.

MR. STEWART: I wonder if we can go back and look at the tabulation on page 5 of the acreage of wheat, oats and barley. I am looking at the years 1945 to 1953, and by quick arithmetic I get a total for the year 1945 for the three grains of 21.4 million acres, and in 1953 a total of 21.5.



In other words the total acreage in wheat and coarse grains has remained constant.

MR. WESSON: That is right.

MR. STEWART: As between those two years.

MR. WESSON: Yes.

MR. STEWART: I do notice an increase in the acreage in wheat during that period, from 13.2 million to 16.1 million, while generally the acreage in coarse grains was decreasing. In the first place, what was the explanation of that trend?

MR. WESSON: Well, of course, a good deal depended upon two things; the actual demand for oats and barley for export to the United States and other countries and second, in those years, in 1951, 1952 and 1953, you will remember that the final payments through the wheat board were reasonably good.

If you will bear with me for a moment and let my memory work, in 1943 when the wheat board took over all the stocks and the exchange was closed, the farmer received \$1.25 by way of initial payment. He received a final payment that year of 12 cents a bushel.

In 1944 we still had the initial payment of \$1.25, but that year we received a final payment of 18 cents.

Then we started the famous 5 year pool, which included the agreement between the United Kingdom and Canada for the sale of 600 million bushels of wheat in the 4 years. The final payment was in excess of





\$1.83½. In other words for 5 years, until last year, we had a price of about \$1.83, which netted the farmer at the country elevator, for No. 1 Northern, \$1.65.

I am not blaming anybody; I am only stating facts, but compare that with the results from 1930 to 1942. Including 1937, when we had nothing to sell, in all those 12 years the farmers of Saskatchewan averaged 56 cents a bushel. In the 8 years previous to last year, when it was \$1.39 net at the country elevator, we received \$1.65.

I would say that the two things, the incentive of the price level of \$1.65 at the country elevator, plus the uncertainty and the lack of markets in those years for oats and barley, were the reasons for the acreage increases. There was a reduction in 1952, when the 3.32 million acres of oats went down to 2.7 million. Barley remained about the same, changing only from 2.6 million to 2.7 million. In other words, to me the whole thing is reasonably constant. There is that difference, however, due to doubts whether the wheat board will allow quotas of oats and barley to be delivered. There have been years when the wheat board have been wanting more and more oats and barley. That in itself, along with the wet condition last spring, became an incentive for more oats and barley to be sown in this province this year.

Mr. Cameron reminds me that during the war years we had bacon agreements and that sort of thing with the United Kingdom, under which we needed to feed more livestock in those years. Then when they



could not pay us the money for our bacon we did not need to grow the coarse grains to feed those livestock.

MR. STEWART: In the long run it seems to me the significant conclusion we can draw from this, however, is that the relative attractiveness of the market for wheat and coarse grains will cause some shifting in farm production. That is, if the market for coarse grain is relatively attractive, then more land will be drawn out of wheat and put into coarse grains.

MR. WESSON: I think that is obvious, sir.

MR. STEWART: I am looking at page 11, where you have a reference to livestock marketing. You point out that it is impractical for the livestock producers of one province to organize their own livestock marketing board because so much provincial production is consumed outside the area; but you believe the producers of several provinces by operating jointly might remove some of the problems that presently harass the livestock producer.

Lifting this curtain a little bit, would you be prepared to conclude that you would move toward this kind of organization in the livestock field over the next 30 years?

MR. WESSON: My organization believes so, and the farmers of the country believe so. We people in the country object to the fluctuation of prices without knowing what causes them. We do make reference at the bottom of page 10 and the top of





page 11 to the change or the fluctuation in price levels, which leaves the farmer in an impossible position to know how to regulate his production. It takes 2 1/2 to 3 years, with cattle; and he wants to look into the future with some assurance that he is going to get some return.

Rightly or wrongly the farmers believe there must be some control; and they believe, and I think the Federation believes, it must be done by legislation. In Saskatchewan we believe it is utterly futile for us to organize alone in this province; but we do believe that livestock marketing organized under legislation by agreement among the three western provinces and Ontario could do a great deal to solve this problem of unwanted fluctuation in prices, and would take care of a lot of so-called abuses that take place in the livestock industry, with which I am not too conversant myself.

MR. STEWART: You would expect this would be a producer-controlled organization, rather than a government board?

MR. WESSON: Yes; that is what we are proposing under marketing legislation.

MR. STEWART: What is the protection to the consumer when you have a substantial monopoly, or a producer-controlled organization?

MR. WESSON: Well, sir, you have gone into something which in my opinion is merely a detail. We have discussed these things so often. I think you would find that if it were possible to set up a marketing board of this kind under legislation, from



the discussion I have listened to concerning it, nobody would have very much objection to the consumers having representation on the board.

MR. STEWART: If my last question could be called one of detail I suspect that my next one may be called academic, but I will ask it anyway.

MR. WESSON: May I give you an academic answer?

MR. STEWART: Yes, you may; I am used to that. On page 15 you are considering this problem of the irregularity of farm income, and you give some figures with reference to the years 1952, 1953 and 1954.

In your analysis of this situation you have stressed the fact that in 3 years we had 5 crops, or in 5 years we had 7 crops, or whatever it may be. These are the irregularities due to weather conditions, and you use the wording here, "This is a gift of nature." That is on page 14, but has reference to the same problem.

I wonder if it would not be better in the years of excess yield if instead of thinking of it as a gift of nature, we thought of it as an advance against the poor crops which will inevitably follow.

There is a substantial difference in the psychology of those two words. If it is a gift of nature it is something we can spend immediately. If it is an advance, then it is something we have to conserve.

MR. WESSON: Well, I do not think that





is an academic question, and I do not have to give an academic answer. As a matter of fact you have given me the opportunity to tell you what our policy is.

We have stated through the years, and we still say, there should be no attempt to control the production of grain in western Canada, other than by the vagaries of the weather. We do say, however, that in times of overproduction, or temporary unwanted surpluses, there should be a system of quotas under which each farmer should enjoy his share of the domestic and export trade.

Now you come to your advance, or your carryover. We say then the balance of the grain that the farmer cannot sell -- he will not sell any more anyway -- should remain on his farm as the best system of crop insurance ever devised in this country against crop failure in the future.

That is our policy. We know that today our policy is undergoing a real test, that we are going through a real testing time. We have this surplus. In thinking back over some of the comments I made in reading the brief, I recall the precarious position many thousands of our farmers in the east of the province found themselves in last year, with no carryover from 1953, in view of that small crop of rusty wheat, 3, 4 and 5 bushels to the acre, with 82 to 84 cents, which meant they had no income. Yet in the west, according to elevator agents, there were still about 150 million bushels to be delivered a year ago last July. Those people did not enjoy it.



We say it is a good thing for a farmer to have a few bins on his farm, because he may have a crop failure. But when it is so intensified as it is today, I say the policy is in a real testing time. We are sure it is going to win, but we do not know yet.

Have I made that clear? We think it is sound for the surplus to be retained on the farm until it is needed. Each farmer should have his share of what can be exported and sold domestically, and the rest can be delivered when somebody wants to buy it. We think that is sound business, sound production, and sound merchandising.

MR. STEWART: Thank you very much. I have some questions I was going to ask about farm storage, but I think you have answered them.

THE CHAIRMAN: I have just one question I would like to ask you, Mr. Wesson. I think you made the statement that 50 per cent of the United States wheat carryover is fit only to feed to livestock. Of the balance what proportion, in your opinion, would be a normal and perhaps a necessary carryover as a stockpile against some calamity or emergency in the future.

MR. WESSON: I am not too sure that I can answer without making an odious comparison, but we figured that a normal carryover in this country for many years was 75 million bushels. They have 10 times the population, and we will say that would be 750 million bushels for the United States.

THE CHAIRMAN: Then they have not any





surplus, practically.

MR. WESSON: Thank you very much; that is what I was going to say. Of milling wheat there is very little surplus to protect the United States today.

May I say this for the record, and I am on sound ground because I discussed this matter with Mr. Benson, Secretary of Agriculture of the United States. If it so happened that there was a short crop of corn in the United States next year, that half a billion bushels of low grade wheat would disappear overnight. But they cannot do anything about it because the corn growers will not let them; and I say that knowing the press is sitting here. The government cannot accommodate both the wheat growers and the corn growers at the same time.

THE CHAIRMAN: Thank you very much indeed, sir.

MR. WESSON: Thank you for your patience. I did not expect to take so long.

THE CHAIRMAN: We found you very interesting.



THE CHAIRMAN: Now, Mr. Goos; I understand you wish primarily just to file these briefs?

MR. GOOS: The brief of the city of Prince Albert is just to be filed. I do not wish to speak to that. If there is any further information desired, the civic authorities will be pleased to provide it to your staff.

I would like to point out just a few highlights in our own brief, from the Chamber of Commerce. I have noticed, Mr. Chairman, that yesterday and in the session I attended this morning you had a good deal of what you might almost call gloomy talk about our wheat surplus and so on. Through the courtesy of Dr. Thomson I am going to use this map for a moment to just point out one or two highlights.

With respect to this talk about the wheat surplus and so on, it gives me great pleasure to possibly lift the curtain a little and talk about two-thirds of the land area of the province. The representations made so far, except for part of the presentation given yesterday afternoon by Mr. Brockelbank, have referred only to about one-third of the land area of the province. I would like just a few minutes to point out some of the prospects in the upper two-thirds of the province of Saskatchewan.

As we all know, the early transportation -- the Canadian Pacific Railway and other lines -- went across the southern part of the province, one line through to Regina, the other line through Saskatoon toward Edmonton. It was pointed out this morning by





Dr. Thomson what P. F. R. A. considers the prairie land area in that province, which is included roughly within this yellow line. That is an area, as we said before, consisting of less than one-third of the province of Saskatchewan.

The same situation applies, only more so, to Manitoba; also to Alberta, although not quite as extensively there. Actually speaking, the words "prairie provinces" I think are a misnomer, because less than one-third of the land area is prairie land. I would like to go on and talk about a few of the prospects there. I would point out that the city of Prince Albert is located some 150 miles south of the centre of the province. The centre of the province is roughly up here, north of Montreal lake. In other words over half the province lies with completely untapped resources, while the traffic pattern that has been established as a result of the existing transportation pattern has been east and west, or vice versa.

We contend that in order to realize the full benefits of our heritage, there must be a changing pattern, a north-south pattern, to feed that east-west transcontinental route.

To do that, as we say, first of all there is the question of railroads. At the present time it can be considered that the railroads stop at Prince Albert. They only go 25 miles north. Thus there is a distance of approximately 462 miles of the 750 miles between the province's southern and northern borders that is not served by a reliable, economic



means of transportation but has to depend on air transportation. Although air transportation into the north has become an established service, nevertheless it is still subject to the vagaries of the weather and where landings must be made on lakes, it is deprived of service for indeterminate periods due to fall freezeup and spring breakup.

At the northern extremity of such a proposed railroad, that is up at Stony Rapids, an extension of approximately 100 miles west brings the railroad to Uranium City and the famous Beaverlodge area, an area that at the present time brings in some 100,000 tons of material annually via water transportation on lake Athabasca. I cannot give you the figures on the traffic going out, because those are security figures. The figures on the amount of uranium going out are not available. In addition it has to bring in further tons of foodstuffs and other supplies via air cargo during the 9 months of the year when water transportation is not available.

In the last day or two there has been some comment in the newspapers about spending some millions of dollars dredging the Athabasca river and improving water transportation. We point out, however, that the uncertainty of such methods of transportation was clearly demonstrated this year when, due to high winds, boats could not cross lake Athabasca for a week at a time and when, due to low water in the river, barges had to cut their loads to one-half because of shallow draft. This cutting of the loads to one-





half began early in August or approximately halfway through the short shipping season, resulting in goods being left on the wharf at Waterways for shipment to the Beaverlodge area via more expensive air-lift. I could not obtain the exact figures, but I understand there were between 6,000 and 10,000 tons of material left on the wharf at Waterways this fall that has to be airlifted into the Beaverlodge area.

From the viewpoint of national defence, the lack of a reliable system of communication and dependence on air transportation alone places this important mining area, the chief product of which is uranium, in an extremely vulnerable position in case of hostilities, a position that can in large measure determine the successful outcome of hostilities in present day warfare. Millions of dollars have been spent in the construction of radar warning lines across our northern defences, yet in case of emergency, rapid movement of men and materials to vital areas such as the Beaverlodge uranium district would be impossible because of lack of an adequate, reliable year-round transportation route.

Not only would such a proposed extension of the railway serve the vital uranium area at Beaverlodge, but the route as outlined would tap --

1. The forest belt area between Saskatoon and Lac la Ronge, which, as was pointed out to you yesterday, was capable of supporting some two or three major paper operations.

2. The base metal properties now being developed in the la Ronge area, such as the copper-cobalt-



gold property of Anglo-Rouyn on Waden bay where an ore body of some 3 million tons has been outlined and where at the present time a 1,000 foot deep shaft is being sunk and underground development work started with a view to bringing the property into production within 12 to 18 months. In addition, you have all heard about the new find of base metals made east of Lac la Ronge. Since that find was announced, some 3,000 base metal claims have been recorded with the Department of Mineral Resources in that area.

3. Between la Ronge and Stony Rapids numerous base metal and uranium discoveries have been made. Adequate transportation facilities would, in our opinion, result in the development of some of these finds and would undoubtedly stimulate the search for other properties.

4. In the Stony Rapids area there are a number of known deposits of low-grade uranium as well as base metals such as copper and nickel. This area is known to have extensive mineralization and awaits only economical transportation for future development.

All this development concerns shortages, not surpluses. There is a shortage today of base metals. There is still a shortage of uranium. Lift the curtain to this area by providing transportation and you would make a considerable difference. You would help to provide that second economy that is so needed today in Saskatchewan.

As far as highways are concerned, I am not going into detail on that matter. I just repeat





that the same east-west pattern is being continued in highway construction. Your trans-Canada highway is less than 100 miles from the international border all the way across Canada, which means that 75 per cent of the province still has no east-west transportation. In order to get the full benefit from that trans-Canada highway we need feeder roads running north and south.

As far as the city of Prince Albert is concerned, this is the gateway to Saskatchewan's playground, with the Prince Albert national park only 36 miles north and innumerable lakes and fishing resorts stretching from this city north to the province's northern boundary. This would be one of the largest tourist areas in the dominion if it were extended.

We submit that a direct black-top highway from West Poplar at the international border north through Moose Jaw and Prince Albert via Prince Albert national park to Lac la Ronge and eventually stretching north to Stony Rapids, bisecting the province as it ~~does~~ would become the industrial, commercial, mineral and tourist highway of the province besides being an important defence artery. As such, a highway of this nature should in our opinion be constructed with federal assistance similar to that now being provided in the construction of the trans-Canada because the economic benefits of this highway would accrue to Canada as a whole and not just to the province of Saskatchewan.

In addition to this main highway we are also of the opinion that a joint dominion-provincial arrangement for the construction of access roads into the north would materially assist in the development of our natural



resources, which in turn would provide a supporting economy to that of agriculture in this province.

Hon. Jean Lesage, Minister of Northern Affairs, in an address in Quebec City to a meeting of provincial government trade and industry representatives, stated:

"The development of northern Canada is more than just a matter of local or regional importance; more than just a question of a few new mines and an increase in our output of gold or base metals or oil. It is the very realization of Canada's heritage."

We agree with his statement and submit that the northern half of the province of Saskatchewan is part and parcel of northern Canada. Extension of railroads and highways into the north from their present termini is therefore essential as the first step in the realization of Canada's heritage and appreciation of the bright economic prospects lying before her in the latter half of this century.

I might just add, Mr. Chairman, that we have a road in Manitoba going up to Lynn Lake to serve a mine. We have a road going up to Knob Lake as well, so it is not an impossible suggestion. The Minister of Northern Affairs has stated that a road will go up to Pine Point in Alberta.

The Lynn Lake property is one mine, though it is true that the road touches Flin Flon on the way up. The Pine Point property is one mine. At Beaverlodge





we have already this producer of another mineral who will likely obtain contracts before next March, with a third mill going into the area, and I believe there are very substantial ore bodies there. At la Ronge, as I said before, there is a copper ore body outlined ready for development. All it is waiting for is road and rail transportation into the area.

Thank you.

THE CHAIRMAN: Thank you very much, Mr. Goos.

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---Recess.

---After recess.

THE CHAIRMAN: Shall we come to order. Would you care to carry on, Mr. MacPherson.

MR. MacPHERSON: Mr. Chairman and members of the commission, the submission I wish to make is on behalf of the Saskatchewan Rivers Development Association.

THE CHAIRMAN: I think we should mark it Exhibit 44, for the record.

MR. MacPHERSON: Might I explain to the commission that this association is a grass roots organization in the province of Saskatchewan. It is non-partisan, non-political, and it is representative of the business and agricultural life of the part of the province that is concerned.

There are a number of members of the association here today. We have Dr. Tufts, the president, of Outlook, Saskatchewan; Mr. O'Shaughnessy,



secretary, who is also secretary of the Moose Jaw Chamber of Commerce; Mr. Hazen, a business man from the city of Saskatoon; Mr. Riley, who comes from Rose-town; Mr. Cooper, a farmer, and a gentleman whom I must now address as His Honour Judge Pope, as he was appointed a judge just today. I am sorry I will be deprived of my former agent in the city of Moose Jaw.

The submission that is being made, copies of which have been filed as Exhibit 44, is on behalf of the Saskatchewan Rivers Development Association. We make no apology for this submission, bearing in mind that you are required, under the terms of reference, to inquire into and report upon the long-term prospects of the Canadian economy -- that is to say, upon the probable economic development of Canada and the problems to which such development appears likely to give rise.

It is our respectful submission that the building of a dam on the Saskatchewan at Coteau is a matter that vitally concerns not only the economic position of Saskatchewan but as well the economic position of the whole dominion. What we wish to underline particularly is that this project is one that is not local in character but is national, and as such should be considered by your commission.

The next two pages are more or less historical. We point out how this country was originally Rupert's Land, controlled by the Hudson's Bay Company, and how it was surrendered to Canada when Canada came into being; how British Columbia, in order to save it for the British crown, had to be united by a railway with the rest of Canada.





It was not until the turn of the century that immigrants in numbers came to the prairie provinces. They had to learn the difficulties of farming in western Canada the hard way. Methods of farming had to be developed consistent with climatic conditions. Such practices as summerfallowing to conserve moisture were developed, and, in due course, in comparatively recent times, new methods had to be adopted to prevent drifting of soil and to prevent the danger of the area being a dust bowl. Because of its climate the area was able to produce wheat and other grains of a quality second to none in the world. The protein content was high, but at all times it had to be recognized that operations were being carried on in a dry farming country. By the very nature of things, times would come when rainfall, which in itself produced the high quality of grain, would be too short and drought would result.

Governments, national and provincial, naturally encouraged diversification in farming by the raising of livestock. Practically every farm as was reasonable had some livestock -- some more, some less. A situation consequently developed where, again having regard to climatic conditions, provision had to be made for feeding livestock during the long winter period. In a winter like this, for instance, we have had winter come to these plains reasonably early. This offered no problem when there was a sufficiency of rainfall and when feed was abundant, but offered a problem



of major consequence when drought came as it did come occasionally in certain areas. The securing of feed and the freighting of it in was an expensive proposition, and one which not only exhausted the resources of the farmers themselves but taxed beyond endurance the resources of the provincial treasury, and made it necessary that advances, and large advances, be secured from the federal treasury.

In 1937 a most severe drought occurred. In the whole province that year only 37 million bushels of wheat were harvested. That was very different from the figures given by Mr. Wesson just a few moments ago. Feed in many areas was non-existent, and in that year herds of livestock on the farms were virtually wiped out. It is not an easy matter to build up a herd, and in 1938 a great number of farmers, particularly in southern Saskatchewan, were faced with the necessity of rebuilding herds, which took a matter of years to accomplish, and which had to be accomplished in the light of shortage of funds. Again there was encouragement by governments to the farmers to rebuild their herds, not only by government of the province but, having regard to the economy of the nation, by the federal Department of Agriculture as well.

Irrigation of the large area which can be served by a dam as requested will mean the assurance of great volumes of feed, not only for the area concerned but for many other areas, and in many ways will preserve in the years of drought the livestock





population of the province, thus contributing to the maintenance not only of the provincial economy but of the national economy, and preventing calls by the province on the national exchequer for assistance when these years come, as we know they will come. There can be irrigated, as a result of this dam, 455,000 acres of land. That is a very conservative figure. It so happens that much of this land is in an area where rainfall is lightest. It is not a question of soil. The soil is fertile, and a soil that can and will produce if reasonable moisture is available.

The whole area was homesteaded. Men and women came from eastern Canada, the United States, and many other parts of the world and took up land. Discouragement in crops over the years, and particularly during the 1930's, has resulted in depopulation of the area. The 18 municipalities in the area had a reduction in population from 1936 to 1951 of 5.28 to 3.3. persons per square mile. The Outlook school district, which in 1931 had 4,114 students, in 1951 had only 1,600 students. In 1931 there were 110 schools; in 1951 only 67 schools.

We are obliged to Dr. Thomson for the map which is here, and which I think I should file as Exhibit A, as indicating the extent to which, without being unkind to Alberta, I can say that province has been favoured in the matter of irrigation and irrigation development, as against the province of Saskatchewan. Our soil, I may say, is just as



good as the soil at Lethbridge, and the water we seek to impound and use here actually comes through Alberta.

A comparison of the proposed development area can be made with the Lethbridge area of Alberta. By climate and nature of soil conditions there is a marked similarity. The irrigated area around Lethbridge constitutes roughly the same general acreage as that in the irrigable portion of the South Saskatchewan river development area. When regard is had to the south Alberta census it appears that every town and village has grown in the area of irrigation, as against the large population in the area I speak of here. Census district No. 2 surrounding the district grew by 12,780 people in 10 years, adding very considerably to new trade -- new trade not only for Alberta but new trade for the whole of Canada, for in measure the prairie population is a buying constituency for eastern manufactured goods. The commission probably will not have the opportunity of driving, as I did last year, from the city of Medicine Hat to the city of Lethbridge, when one only had to enter the irrigated area to see the conditions in that area, as against the area outside, to realize the extent to which irrigation contributes to contentment and prosperity.

In 10 rural municipalities alone, which this project would irrigate, the expenditure for relief in and since the thirties has been \$6,056,000. The expenditure in prairie farm assistance has been \$6,214,000, and those figures are only up to 1951, and in 8 contiguous municipalities during





the same period the relief costs were \$3,697,000, the P. F. A. costs \$3,970,000, a grand total of \$19 million in these municipalities, the great bulk of which money was a drain on the federal treasury.

In a very real sense, it will be apparent that the Canadian economy is involved. In the whole of the province covering the period to 1939, the expenditure for relief was \$186,500,000, and the payments made by the P. F. A. administration since 1939 up to 1951 amounted to \$102 million. The project will serve an area that by its pioneers has been built up with railroads, highways, schools, churches, hospitals and the like, but which in recent years has become depopulated and the process is going on and will continue to go on until relief is afforded to the area by way of irrigation.

With irrigation the trend toward the larger farm unit will be halted, and many, many farm families can be placed on a secure and permanent basis. It is essential that assured feed supplies be provided, and at the moment our young men are suffering in Saskatchewan from land hunger. As Mr. Wesson also indicated today, that is pretty much the situation. Due to conditions, not because of lack of courage or initiative on the part of settlers, not because of the barrenness of the soil, the area has become a depressed area, and as the Prime Minister of Canada stated in the House of Commons on June 28, 1952, at page 3945 of Hansard:

"This third project was the South



Saskatchewan river project. This is of particular interest in the central provinces, but it is also of interest to the whole of Canada to have Canada developed in such a manner that there will be no depressed area in this country."

Saskatchewan has only two rivers as a source of extensive irrigation and power development. The most important is the South Saskatchewan. We have no hydroelectric development in Saskatchewan, and if this project is not constructed an annual potential of upward of 400 million kilowatt hours will be wasted and downstream power potential will be reduced. This power we need in the worst way for the electrification of our rural areas, and for industrialization as it will develop. It will be of interest to the commission that in the last 10 years rural electrification has increased from 500 users to 30,000 users. I am more than conservative in that last figure I gave. I understand the figure given yesterday by the government was that at the end of 1956 there would be 40,000 rural users of electricity in the province of Saskatchewan; and we have no hydro in this district at all.

It will also be of interest to the commission that in the past two months announcements have been made of three large industrial developments in Regina -- one a German pipe and tube plant, one an American pipe and tube plant, and one a large cement plant. To encourage further industrialization, power must be





available, and power at reasonable cost, and the cost at the present time could be and would be lowered if this power were available.

As this commission will know, there was appointed in 1951 a royal commission consisting of Dr. T. H. Hogg, Mr. Gaherty, and Dr. Widtsoe, to inquire into and report upon the feasibility of this project. That commission reported in 1953, and I regret to say that it did not recommend the immediate undertaking of the project. The P. F. R. A. -- that is a government organization -- which is staffed with competent engineers, estimated the total cost to be \$135 million, made up of \$80 million for the dam itself, \$35 million for the irrigation system, and \$20 million for the power plant.

The government of the province of Saskatchewan agreed to accept the figure of \$17,860,000 as representing the value to Saskatchewan of the dam in terms of the generation of power. It also undertook to be responsible for the power plant to cost \$20 million, and the irrigation system to cost \$35 million, so that the government of Canada, out of the total cost of \$135 million, would be assuming a cost of \$62 million against a provincial outlay of \$73 million. I think this must impress itself upon the commission that no government of this province would lightly undertake to finance an expenditure of \$73 million for this project unless it was convinced beyond doubt that so far as the economy of the province was concerned the expenditure was essential, not only in the matter of



agriculture but in the matter of power as well. And if, and this is submitted respectfully, any province would on its own undertake such an expenditure, then that must be evidence of the weightiest character that the project on which the money was to be spent was vital, not only to the economy of the province itself, but to the economy of the entire dominion.

I do not wish to take our sister province of Alberta as an example indicating more attention to Alberta, and again I apologize to Dr. Stewart, but the fact is that irrigation water already allocated from interprovincial streams in that province is for 1,256,000 acres of land.

I want to correct the next sentence in the brief, in which I say that from such interprovincial streams Saskatchewan has an allocation of only about 30,000 acres. I understand that an allocation has been approved by all the governments of 100,000 acres, but we need the dam in order to make use of the allocation we have. Furthermore, Alberta has 700,000 acres of irrigable land for which water has been allocated, and on which development has not as yet taken place. We in the province are ready to go ahead with allocation, with the approval of the other governments; but we need the project to be proceeded with.

I feel I should call your attention to municipal water supply problems which have been experienced by such communities as the city of Regina and the city of Moose Jaw in the past few years. It has been a





difficult situation and in both communities promised to be almost a desperate situation. This project would guarantee municipal water supply. It would furthermore assist in flood control, which at times is a serious matter, and, at the same time, provide for a measure of industrial development through its power factor, which we feel is our right as well as our need.

Ontario is fortunate at the moment, as is Quebec, that the St. Lawrence seaway is being proceeded with, not alone for the commerce which it will generate, but in particular for the power that it will make available. The construction of this project will enable the people of Saskatchewan, rural and urban, to look to the future with a greater degree of security, and they can feel that their standards of living will be maintained if not enhanced, and that there is an assurance of diversification of our economy.

We for years were regarded by the rest of Canada as a province relying entirely on its wheat economy. When nature failed to give us sufficient moisture we were in difficulties, and great difficulties, and the national exchequer had to come to our assistance. The economy of Canada was truly involved. In the last six years great strides have been made in developing other resources such as oil, gas, potash and uranium, but the real wealth of our province after all is the top six inches of our soil, and security must be assured to our people in this regard if at all possible. At all times it must be kept in mind that one sure means of



keeping the factories and workmen of Ontario and Quebec busy is to provide prosperity for the prairie provinces. If we have crops and can sell them we buy, whether it is shoes from Quebec, combines from Toronto or Brantford, or the countless other manufactured products that we require.

As I have indicated, we can expect the trend of farm unit, which has gone up in Saskatchewan from an average size of 295 acres in 1911 to 407 acres in 1931 to 550 acres in 1951, to be reduced. On irrigated land on the basis of 160-acre farms, the farm density in the area will be more than doubled. Total agricultural output will be at least 3 and probably 4 times the present output. Summerfallow practices can be eliminated. Grain production will not develop as rapidly as livestock, grass and forage crop production, together with expanding possibilities for specialty crops. Feed supplies for livestock production throughout large areas of the province will be assured. The availability of feed will permit a more intensive use of pasture areas, and the periodic destruction of herds because of drought conditions will be avoided. The impounding of South Saskatchewan water will not only provide for irrigation but make available a large supply of sorely needed hydroelectric power. The Coteau creek dam alone will permit the annual generation of 475 million kilowatt hours of energy, 100 million kilowatt hours secondary power, and 50 million kilowatt hours pumping energy. In addition, the excellent river control provided by this dam will directly increase the potential of the





proposed Fort a la Corne project near Prince Albert by another 100 million kilowatt hours of energy. It is highly likely that other downstream sites will benefit in the same way in the future.

It should be noted here in urging the concern of the national economy that as a result of the depression of the thirties in debt adjustment, in tax cancellation, \$125 million has been written off liabilities in this province and those who were involved in the write-off were not only the rural municipalities but the chartered banks, the implement companies, the lumber companies, and all other concerns throughout Canada that had to do with our country during that unfortunate period.

It is not the purpose of this submission to establish the benefits of irrigation nor the need in this industrial age for power. We think they are both obvious. Suffice to say that on the authority of J. W. Dixon, the director of project planning in the United States Bureau of Reclamation, about 6/10 of 1 per cent of the world's land area is irrigated, yet that 6/10 of 1 per cent supports about 25 per cent of the world's entire population.

At the moment, with all wheat-producing countries having in the last few years produced good crops, there is a surplus of wheat in the world, but Sir John Orr, the vice president of the United Nations food and agricultural organization, has said:

"In the race between population and food, population is winning."



The people of Saskatchewan, which province is an integral part of the whole dominion, see the area concerned with this project being depopulated. They know what can be done with the water in the river, both as to irrigation and as to power, and they have reasonable ambitions that in their day and generation the water should be used as it can be used. It is not a mean ambition; it is a fair ambition. The land is here; the land is suitable for continued irrigation practice; there is water; there can be constructed the proper distribution works. In a sense, and in a very real sense, we are squandering our resources in permitting them to go unused as we are doing here.

Unless we develop our resources we can never grow intrinsically strong. The whole purpose of this submission is to bring to the attention of this commission the feasibility of this project, the need for this project, and that in the last analysis the economy of Saskatchewan alone. That part of the project which is local to the province and which concerns the province, the province is prepared to pay for, but the province cannot undertake the whole project itself.

Saskatchewan as a province has always been noted for its wheat economy and our people realize to what extent it is dangerous to rely too much on a single cash source of income. As we have said before, the wealth of the country agriculturally depends on the top 6 inches of the soil, but a successful agricultural programme consistent with the advancement





of the economy of the nation, can best be developed by diversification in agricultural pursuit. If we are limited to raising grain alone, difficulties will be presented both in periods of drought and in periods of glut. If diversification, as advised by governments, provincial and dominion, is followed; if livestock is raised; if herds are improved, then with an assurance of feed our agricultural economy will be on the soundest possible basis.

We are naturally pleased, as citizens of this province, with the development of other resources in the past few years, but Saskatchewan must always be regarded primarily as an agricultural province and under no circumstances should that agriculture be lop-sided or one-sided, but should be agricultural effort in all its phases.

We seriously feel that what we are suggesting in urging the construction of this project will, in most definite fashion, contribute to solving recurrent problems of the past in overproduction or underproduction of grain, and at the same time guarantee to our people who are on the land a measure of security that otherwise would be denied them. We are not thinking in Saskatchewan, keeping in mind the national outlook, that we should depart from our traditional position of being an agricultural province. That we believe is in the national plan, but the national plan can best be carried out by assuring to the people on the land that if they follow governmental advice and diversify then they will not be called upon to abandon



diversification because of drought.

In a dry farming country such as ours, the nation, we respectfully submit, will be failing in its duty unless it provides that measure of irrigation which will promote the flexibility of agriculture. In presenting this brief we do so in the firm conviction that the prosperity of Canada is indivisible and unless Saskatchewan prospers the whole of Canada will not attain the measure of prosperity which it should have.

All of which is respectfully submitted, on behalf of the Saskatchewan Rivers Development Association.

May I say that Dr. Tufts is here, and he will add something to the submission in his own words, and will be glad to answer any questions which may be directed to him as president of the association.

THE CHAIRMAN: Thank you, Mr. MacPherson.

MR. TUFTS: Mr. Chairman and gentlemen of the commission, in urging your consideration of the South Saskatchewan river project, as outlined in the brief just presented to you, we do so not only on the recognition of its regional benefits but even more so because we believe that it forms an essential unit in what should be a comprehensive water resource programme for the prairie provinces in the future.

The future of the Canadian economy will depend more and more on the close interrelation of agriculture, industry and trade. This will demand a water resource conservation and utilization policy





for all prairie waters and in this plan we believe this project will take its place as the largest unit and the first unit.

Canada is long overdue in formulating such a plan, as may be witnessed in the progress that the United States and the nations over the seas have made in this direction, and Canada must come to realize that there is all truth in the statement of Hoover that every drop of water that runs to the sea without first rendering a commercial return is a public waste.

It is because we believe that the benefits to be derived from this plan will widen the entire base of Canadian economy and give Canada a more flexible production machine that we feel that this project should loom large in Canada's future economic plans.

In our brief you have heard of our past experiences; the agricultural and other benefits of the plan have been indicated and some of its long range benefits pointed out.

Here we would further urge a consideration of some of the basic factors in irrigation economics which we have not, as yet, become the mental approach which must revolve not only around irrigation in central Saskatchewan but large scale irrigation anywhere in Canada.

We would like to emphasize here two basic and major considerations:

This is a multi-purpose project.

1. No matter how generous nature has



and in her great gift of resources we would be very shortsighted indeed if we based our future plans on the assumption they are inexhaustible. This is just as true in the case of water as it may be in the other fields of resource. Indeed the statement has been made that scarcity of water may well prove to be the limiting factor in the future development of the west.

Therefore in our plans it would be wise to remember that in the problem of water resource development the more uses that you make of the same water the more economically feasible becomes the plan and the safer your economy.

With the Saskatchewan river project showing this multi-purpose feature to a very high degree -- irrigation, power, flood control, municipal water supplies, resort and recreation -- the more attractive does it become in Canada's future water resource control programme and with varied interests deriving its benefits the more attractive it becomes to the Canadian taxpayer.

But the term "multi-purpose" immediately implies much more than this, since we have passed then beyond the mere phase of irrigation, which is only a part of the plan, and have commenced on the much greater plan of water basin development. A dam is only as wide as the stream but the plan is as wide as its valley, even extending, in its implication here, to the eastern slope of the Rocky mountains.

We no longer speak in terms of water on dry acres; indeed, just to make the desert bloom like a





rose falls far short of our ambitions. We have come to consider the much broader national picture of industry and immigration as well as irrigation, the three I's of water basin development. It is no longer a question of private interest with local direct benefits, but it has become a problem of public interest with national responsibility, with indirect benefits which radiate out into all the trade channels of Canada from east to west. Financial feasibility has become submerged by the far more important consideration of economic feasibility.

Not cost estimates are the yardstick, but cost benefits, since the indirect benefits which will accrue to Canada will always return to the national economy far more than the construction costs expended in the works.

2. The immensity of the plan. We would also impress upon you, gentlemen, that this is not a small dam in a ditch somewhere in Saskatchewan, which is a thought not entirely absent from the higher centres of our land. This is big. It is the biggest public work next to the St. Lawrence seaway.

The brief presented indicated to you that its irrigation features involved a basic 500,000 acres, and this could be doubled. Its stabilizing effect on agriculture would be felt over 10 million acres, half the seeded acres of our province, approximately one-third of the cultivated acreage and one-tenth of the total dry land of the Palliser triangle, but we are very mindful of the fact that the greatest weakness of



the west lies in its lack of people. If people are a country's greatest asset, then their exodus from our province has been Saskatchewan's greatest tragedy. We need people to develop western Canada and our own province to keep pace with Canada's future switchover from an agricultural nation to a greater emphasis on an industrial economy. In 1905 the cry was "The west is empty." In 1955 we carry the thought that it is empty still.

In central Saskatchewan today with 3 people per square mile we have few enough people to carry our tax burden without the greater task of contributing to the national economy, and far too often other Canadian taxpayers have had to step in to keep us alive. Under irrigation 3 people per square mile could become 30; instead of about 20,000 people in the project area we could have 200,000. Should this not be considered in the future population projections to an estimated 25 or 30 million Canadians in 1975? Should we not be planning for closer sources for food materials to serve the industrial areas as these show a future west coast trend?

We believe too that Canada in the future should be planning for a more even spread of potential labour pools that can handle the future decentralization of industry that will be demanded not only for a better Canadian industrial balance but for greater security from world pressures in an unsettled world.

Power, industry, people; they go hand in hand. As for industry and power which brings people here, we have a plan to bring 475 million kilowatt hours of power to the Canadian economy, with the development not





only of local processing plants to feed our people but with the influx of other industry which will turn back into the domestic markets some of the manufactured goods the future millions will demand.

This is brief, but I appreciate the opportunity of conveying some of the thoughts of our association to you. I assure you, Mr. Chief Commissioner and gentlemen, that we are Canadians who are not only mindful of the fact that we carry with us the hopes and aspirations of a people who have struggled against hardship too long but who also dare to hope that we advance a plan for a greater Canada of the future.

In summary:

1. The South Saskatchewan river development involves a concept of water basin development in its broadest phase. We urge an immediate program of comprehensive water resource conservation of which this project will be an integral unit.

2. The indirect benefits permeating throughout the whole national economy bring such a feature of economic feasibility that the plan is one of national responsibility.

3. Next to the St. Lawrence seaway it is the biggest public works project in Canada's future programme.

4. Embracing as it does the larger concept of irrigation, immigration and industry, it is a necessary link in Canada's future economic chain.

I am proud to make this statement for the Saskatchewan Rivers Development Association. It contains no statistics or figures -- we are not experts -- but it will convey to you the thoughts that urge us to



advocate this plan before the nation, but I feel that facts and figures alone, important as they may be, will not make a great Canada of the future. Hopes and dreams and desires born of unity of interest are needed. If this were not so then we never would have had a Canada at all.

Thank you for this opportunity.

THE CHAIRMAN: Thank you, Mr. Tufts.

Mr. MacPherson, you described the general nature of your association, but I do not think you mentioned the number of members. Could you tell us that?

MR. MacPHERSON: I will ask the secretary.

MR. O'SHAUGHNESSY: The association has not been too greatly interested in members, and as a result we have not made an intensive drive for membership. Our membership has been more or less voluntary. We have now 44 municipalities who are members, which in itself is indicative of the support being given this project, because there are only 18 municipalities in the development area. All 18 are members of our association, and in addition we have 26 municipalities from outside the area. We have the support of all the larger centres, the cities, towns and villages, both in the development area and the Qu'Appelle valley. These are the areas that will be benefited. In addition, our strongest support is in our individual membership, which is now something over 1,000 individual members. We do not have industry as such supporting us; we have never approached them. This has been entirely a grass roots movement by the people.





MR. GRAUER: I realize you said that costs were not the main thing, but I am not clear on the cost of this development. Do you have the figure for the installed capacity of the power development in kilowatts or horsepower?

MR. O'SHAUGHNESSY: Yes. I believe that was mentioned in the brief.

MR. GRAUER: That was kilowatt hours, I think.

MR. O'SHAUGHNESSY: The total potential is 475 million kilowatt hours.

MR. GRAUER: I mean the installed capacity.

MR. O'SHAUGHNESSY: It is 210,000 horsepower.

MR. GRAUER: Then the cost of that, the allocation was \$20 million for the power plant and approximately \$18 million for the part of the dam that would be required?

MR. O'SHAUGHNESSY: The part which would be used for that purpose.

MR. GRAUER: And what would be the number of families proposed to be settled in the irrigation project?

MR. O'SHAUGHNESSY: The number of families in the project area at the moment, sir, is in the neighbourhood of 1,200. The initial report of the P. F. R. A. anticipated an increase to 2,700, although recent figures and statements would indicate perhaps even between 3,000 and 3,500.

MR. GRAUER: And the remainder of the



cost would be apportioned to the irrigation aspect of the project; is that how it would go?

MR. O'SHAUGHNESSY: Deducting the power; yes.

MR. GRAUER: We have heard representations about the impossibility of developing the minerals of the northern part of this province and other parts of Canada. That usually gets back to what is represented as an urgent need for roads and in some cases even railways. We also heard yesterday that it was very difficult to raise money for the many projects that were to be carried out in this province.

Assuming that there had to be priority in these things, how would you place this particular project; how near the top.

MR. O'SHAUGHNESSY: First.

MR. STEWART: Reference has been made to the more intensive irrigation developments in Alberta than have yet been accomplished in Saskatchewan. We have had a good deal of experience in irrigation in Alberta, and in every case it is considered necessary not to charge all of the developmental costs against the land.

I am not questioning that principle, but in the Alberta projects I think I am correct in saying that in no case has the cost per acre of irrigable land exceeded \$80. I believe that is the cost for the St. Mary river project. In Alberta these are the figures to which we are accustomed.

The commission will be studying the royal





commission report on this project, the P. F. R. A. report, the submission of the provincial government and other documents which are readily available, but my recollection is that after eliminating your power costs, the cost per acre of irrigable land in this case is very much greater than it has been in any previous irrigation project, certainly in any Alberta project. Perhaps it might be as well for us to have on the record of this discussion just what are the most favourable computations of costs for an acre of irrigable land in this project.

MR. TUFTS: I do not know whether I am qualified to answer that question. May I call upon an expert, Dr. Thomson?

MR. THOMSON: Mr. Chairman, we have made a submission of all costs and cost benefits of this project, and we can make that available to the commission. As far as irrigable land is concerned, we consider the cost per acre is a very poor measure. For example, there are urban benefits which would come from the construction of this reservoir that have to be considered as well. In a figure of \$82 million of cost for this reservoir there is included power; there is the urban relationship; there is the control of water through the two provinces, and so on.

I have not with me the submission we prepared for the government, but I will be glad to place it before the commission, along with my brief, if you wish it.

MR. TUFTS: To answer Dr. Stewart, of course I am an idealist. Therefore my reply is that when the



public builds the dam, what cost is there against the land?

THE CHAIRMAN: On that theory we would build a lot of things. I do not think that is much of an answer, really.

MR. STEWART: I do not want to press the point, but as I have seen the figures you must not be surprised if some people appear a bit shocked by these calculations.

MR. TUFTS: Originally you asked me if I could give you my impression of it. I think Dr. Thomson would correct me and silence me if I should be out of order, but the only figure I know is an original cost per acre of \$200 against the land. Taking off the power costs would reduce that to the neighbourhood of \$100 per acre, and further considerations would possibly make land costs in the neighbourhood of \$50 per acre. I have seen those figures.

MR. POPE: It compares favourably with projects which have been built in the United States.

MR. MacPHERSON: Judge Pope has special knowledge in this connection, and perhaps he can make that statement with that knowledge.

MR. POPE: It does not compare favourably with Alberta, which is away low in cost as compared with other irrigation projects throughout the world. That is why they have had such a lot of development, because the cost is so very low.

MR. STEWART: But everybody who has put money into it has lost his shirt.

MR. MacPHERSON: The C. P. R. lost some





money, they told us.

MR. STEWART: And Canada Land.

THE CHAIRMAN: Well, I think we should accept Dr. Thomson's suggestion that he will let us have his estimates. I think you will appreciate, Dr. Tufts, that in a commission of this kind I do not know whether this is an issue which we should get into, in any case. I remember that there was a certain amount of discussion of that point when this commission was first announced; but I think for our own personal satisfaction, anyway, we would be interested in knowing what the costs might be.

MR. MacPHERSON: I think the best evidence in that regard can be obtained from Dr. Thomson. If he has the information, he is an independent witness; he is not a partisan witness, and he can give the independent information in that regard which he has assembled.

The one thing we want to stress to you, and the purpose of this submission is to have it impressed on the commission, is that this project concerns the whole of Canada, and not only the Outlook district in the province of Saskatchewan, or the province of Saskatchewan itself.

THE CHAIRMAN: Thank you very much,  
Mr. MacPherson and Dr. Tufts.



THE CHAIRMAN: I understand that Mr. Aitken, manager of the Regina Chamber of Commerce, and Mr. Purdy, executive secretary of the Saskatchewan Board of Trade, will present a joint brief, which we will mark as Exhibit 45. Mr. Aitken, are you going to do the presenting?

MR. AITKEN: Mr. Chairman and gentlemen, coming at the very end of your sitting here, as I understand we do, I am afraid I cannot avoid a certain amount of repetition. Some of it I must confess is deliberate, but I am going to try to avoid any unnecessary repetition by not reading all of this script, if that is acceptable to you. In other words I shall refer to it and try to get over the substance without reading it, and I hope that will take less time.

First of all, gentlemen, we make brief reference to the population situation in the province, and point out that we are partially recovering the loss since the peak year of 1936. Frankly, I am not at all convinced that we are gaining; that is, that we are adding more than our natural increase, even though we do have a certain amount of immigration.

We do know there has been a tremendous increase in the school population in our urban centres. Regina is a very good example of that, and we are concerned over our ability to provide the job opportunities for our people who are coming on to the labour market, because we feel that unless we can do that we will not hold our young people. We are afraid that is what is happening now, that they are not staying here because of lack of job opportunities, although of course the





last few years have been very favourable.

Now there are fewer people, obviously, getting work in agriculture; our last census showed that very clearly. The slack seems to have been taken up by our service and trade occupations; government, transportation and general expansion in occupations of all kinds, other than in agriculture.

However, we are doubtful of the ability of the trades and services to continue to absorb the people. For instance, the oil industry has absorbed many people in Saskatchewan in just the last few years. It is estimated that \$384 million has been spent in oil exploration and development in this province last year, but much of the work thus provided was clerical and field work, and so on. We hope that will continue, of course, but we cannot conceive of it continuing indefinitely, that is in a rising spiral.

In spite of this failure of agriculture to absorb our people, from the point of view of work, we think we are going to remain basically an exporter of raw products; that they will continue to be our traditional function, agriculturally speaking.

I have mentioned here that we are a big importer, and I think perhaps I will just emphasize that a bit. A group of us in preparing a submission to the board of transport commissioners -- and I may say that in the group were wholesalers and shippers -- estimated that we imported 80 per cent of our consumer requirements. We did not discuss capital requirements, but I would estimate those in about the same proportion.



So we are sort of an island, where everything has to be brought in that we consume. Therefore we are pretty vitally dependent upon our ability to export, since in all likelihood we are going to continue that dependence upon exports in spite of the fact that agriculture may be providing fewer jobs than formerly.

In other words we do not say very much about our agricultural situation because we knew you would have men like Mr. Wesson to do that. We did want to make some reference to it, however, because the businessmen of the province recognize our dependence on it. So I say it is not just a matter of welfare, but that our very economic life is dependent upon our exports, of which wheat is of primary importance.

That is about all we can say on that. That is all it is necessary to say, after the submission you heard this afternoon.

You have just heard a submission from the Saskatchewan Rivers Development Association. We feel completely sympathetic to the subject discussed in that brief, and wish to go on record as endorsing their proposal. We feel this would be a remedy for some of our present ills, in that it would give us some stability and would bring about the production of products that are subject to secondary processing. We believe we would thereby create new job opportunities in secondary industries, as the result of an irrigated area. We also think this matter of producing raw products, and the whole field of agricultural production, might very well become a greater source of employment





possibilities if industrial uses were discovered for many of the things we now grow. Chemurgy is not always emphasized. It seems that every time we have a surplus we start talking about it. Having been a friend of Dr. George Washington Carver in the United States; having been through his laboratory, although I am not a scientist myself I have been greatly impressed by the possibilities in the use of farm products for industrial purposes. We feel that is one thing that requires more emphasis.

We have excellent facilities in Canada for research in this connection, and while we are not suggesting that perhaps everything that should be done is not being done, we want to bring to your attention this matter, in case there are opportunities there for the development of jobs. In that connection I want to bring you this statement by John A. Stuart, whom I heard give a paper last month in Winnipeg. I thought some of his comments were particularly apt. He said:

"Perhaps research and science and an increase in industry can soon help to alleviate the problems of supply and demand. In eastern Canada and the U. S. A. at the present time over 100 products are being manufactured or processed using corn as an ingredient. These vary from safety glasses to chair fabrics, paints, tires, women's hosiery and shoe leather. Yet about 85 per cent of the corn product is used for feed for livestock, greatly



lowering the demand for other feed grains. Less than the remaining 15 per cent is utilized by a manufacturing or processing industry. If science and research could profitably find uses for another 10 per cent and new products developed were directed in to trade channels, this alone could help alleviate a problem for all grains. Perhaps nothing should be left undone to see that research and science are greatly stimulated and adequately financed to proceed in that direction. We may find many more uses for some of our stable commodities in future years, and the manufacturing and processing industries may well be our most important industry in stabilizing agriculture as our basic industry."

When we advocate increasing the value of agricultural products by processing them, instead of exporting them as raw materials, of course we think the same principle should be applied to other products which we are producing and which we hope to produce in greater quantities. We are producing raw products now, such as oil, gas, sodium sulphate, uranium, coal, clays, timber, pulpwood and so on; I think you have the story set out much more adequately in the provincial brief. This is in the process of development, as is being done with our potash deposits; and it has been indicated that substantial discoveries of base metals and copper





have been made, though of course we are already producing some of those at Flin Flon.

We are hopeful, of course, that as these products are developed they can be processed in this area, to provide job opportunities here.

I am afraid the member of your commission from Alberta is going to get a little embarrassed if we also start talking about Alberta. We seem to be singling his province out as a great example.

THE CHAIRMAN: He likes it.

MR. AITKEN: Having grown up there perhaps I can allude to it, but I mention Alberta as a good example of a province processing its raw products and providing for industrial expansion based on petroleum, and I suggest that we should follow that example in this province.

Then I point out that nitrogen fertilizers, plastics, synthetic fibres, synthetic rubber, solvents, insecticides and so on are all potential petro-chemical industries for western Canada, and we hope for Saskatchewan.

We go on to point out that large scale development of these products is to a great extent dependent upon larger markets than we have in Canada, and there we become involved in the tariff policies of our country and the United States. I go on to say that generally speaking westerners are not favourable to tariff protection, but that in our opinion some change in that attitude may have to take place if we are to encourage more processing of our raw materials in the west.



I do not think I need read the quotation I give here from Mr. J. R. Donald, president of J. T. Donald & Company Limited, Montreal, though I think it is strikingly applicable to the point we are trying to make here, and it deals with materials with which we are dealing right here in this province. One of those materials is 2,4-D, and the other is pulpwood, which we hope may become one of our major industries as well. You have heard about that; I do not need to repeat it.

As I point out, here we become involved in our trading relations with the United States, and we just hope that this commission in its submission or conclusions may see some way of improving the situation so the Americans will be willing to admit more at least semi-processed goods, instead of being a market for only raw materials, as they are basically at the present time.

I am repeating a little when I come to my next point, but we are basically a businessman's organization, and we feel that we have a tremendous problem because of our small population and extremely high highway mileage. This high mileage is not just a matter of preference; it is a matter of necessity, because of the tremendous arable acreage we have to serve. So we are almost forced to have this high mileage, even with a sparse population. We think it is highly unreasonable to expect this province to provide the roads all on its own, and we believe some federal aid should be considered at least desirable,





or more than desirable, for roads that serve to develop our country, such as the northern roads which have been discussed here by Mr. Goos. I refer particularly to the northern development roads.

I mention that one industry which is basically and directly affected, of course, is the tourist industry, of which Saskatchewan has a very, very small share. I point out that we have great attractions to tourists. Perhaps you gentlemen have been in our north country, to which Mr. Goose referred. I have had that privilege on many occasions, and I think it has a limitless potential for the tourist industry if we ever provide ready access to it. Unfortunately it is about 300 miles north of the international boundary, and we have relatively inferior roads into it, and a limited number even of those.

We think here is a great potential for new employment for the future, if we take advantage of it. I point out that in Montana with a topography somewhat similar to our own and a small population, with a basic economy somewhat the same, they estimate an annual expenditure by tourists alone of \$87 million, while our comparable figure is only \$10 million. We think we could approach the Montana figure if we had the type of roads Montana has; and of course they only have them because of a policy of federal aid; and that policy has been followed for several decades.

I point out, of course, that the construction of roads would bring multiple benefits, in that they would provide us with a tourist industry; they would give us development roads and open up some of our mineral areas and possibly some new settlement areas in



our mixed farming districts as well.

To summarize, we have stressed the need for the creation of job opportunities through: export of agricultural products; diversification in agricultural production; secondary industries through chemurgy; and the upgrading of raw materials of all kinds; tariff policies; resource development through roads, etc. In brief, we anticipate a need for expansion of enterprises of all kinds, but with added emphasis on secondary industries.

We look for and will need an expansion of enterprises of all kinds if we are going to keep more people here.

I point out what you may have seen, the figures showing the terrific increase in the number of registrations of companies doing business in this province and the number of new incorporations. To my mind, from the point of view of providing jobs those figures do not mean very much, because people have to become legal entities in order to conduct their business. They may be conducting some limited operations, but there are very few personnel involved and generally no physical plant; no house, no factory, no office. You will find a list of companies, perhaps scores of them, with one law firm representing them. Just how much business is done through that firm I have no idea; but from the point of view of employment I would think the contribution is very limited.

We think it might be an inducement for these companies to open offices and warehouses and factories -- this process, mind you, is going on;





we just hope it can be accelerated -- if we were to offer some tax inducement, and we suggest that what is done now for some companies might be extended to make it more generally applicable, namely an exemption from income tax for new enterprises for a 3-year period. We pass on that suggestion for what it may be worth.

We also believe there is a real problem facing small secondary industries in providing their initial capital. I point out that this is not true for large corporations, which can go to the money markets, but there is a problem in connection with the small industries, and I think it is recognized in all the other provinces. I know it is definitely recognized in the United States, and certain measures have been proposed to solve the problem, to a much greater extent in the United States than in Canada.

I have some comment by Mr. J. R. Petrie of Jones, Howard & Company, Montreal, which is very apt and very pertinent to what I am trying to say. It seems unnecessary to read it to you. It only says in better words than I have used what I have tried to say, namely that small enterprises have difficulty getting capital, and he points out that the industrial development bank was organized for this purpose but that its application has been extremely limited, with about \$43 million borrowed to date. He says this is only enough to instal two new newsprint machines, and he concludes that financing small enterprises will continue to be a problem.

What we are suggesting in this connection, as an inducement to decentralization and as an encouragement



to secondary industries in particular, is that this commission might re-examine the purposes for which the industrial development bank was formed and the regulations under which it operates, to see if it could become a more effective instrument for providing capital more readily to the small, secondary enterprises.

The other point we want to mention is this matter of low cost fuel, which we think would help greatly also in creating new enterprises, particularly of the secondary type. We are so close to the source of gas now, which will be coming right through Saskatchewan from Alberta, and we are developing sources of our own, that we are a little bit concerned lest we do not get -- I am just anticipating here -- the advantage of the nearness to the source of supply that we should get.

I point out that we are a little apprehensive lest capital costs in relation to the number of consumers may be higher than would have been necessary had a route been selected nearer to large centres of population. We do not know; I say we are just apprehensive. We hope our need for cheap fuel will not be jeopardized on that account. It may be premature to discuss rates, but we are most anxious that Saskatchewan gain any advantages it can because of its proximity to the source of supply.

Then I point out that of course we have suffered from the very reverse situation, because of our long distance from our export markets, and our long distance from our sources of supply. So we have had a tremendously higher cost in this area of the country in doing business, because of these freight costs. Here is a situation which just reverses that process, and





we hope in this case we will get the advantage of having a relatively lower cost of fuel, and thereby have an inducement to offer new enterprise, particularly of the manufacturing type, to enter this area.

I think, gentlemen, I have said about all I had in mind saying. I do not know whether I have improved it by saying it rather than reading it, but I do not think it has taken quite so long.

MR. GUSHUE: I would like to ask one question, if I may. On pages 3 and 4 you deal with the question of tariffs, particularly the United States tariff.

I am just wondering if you might possibly be a little inconsistent in your approach. You refer to the policy of the United States in placing a higher tariff on processed materials coming in than on raw products, and you suggest on page 4 that a more favourable arrangement with respect to the United States ought to be sought. Then in another reference you say:

"Generally speaking, westerners are not favourable to tariff protection, but some change in that attitude may have to take place if we are to encourage more processing of our developing raw materials in the west."

Is that a little inconsistent?

MR. AITKEN: I would not be surprised if I could be readily accused of inconsistency in



discussing tariffs. We are not believers in tariffs to any great extent, but I am not sure that I quite catch the point which you consider to be inconsistent in this connection.

MR. GUSHUE: You are suggesting that if Canada is to encourage more processing of its raw materials -- you restrict it to the west but I presume that would apply to all Canada -- it might be necessary to change the attitude with regard to tariff protection, and protect these industries.

MR. AITKEN: Yes.

MR. GUSHUE: That is what the United States is doing today, and you rather mildly attack that policy and say that situation should be changed if possible.

MR. AITKEN: That is true. They have built up their industrial plant by tariffs to some extent, and we have done the same. I think it would be a saw-off to get the best terms possible, because some of these would have to be reciprocal arrangements.

MR. GUSHUE: Could you go to the United States and ask them to abandon this policy of protecting processing industries, and at the same time adopt that policy in Canada?

MR. AITKEN: No. It might be difficult; I admit that. I do not know that I can solve the dilemma we are in.

MR. GRAUER: With respect to your observations about the natural gas line, and your apprehensions, what centres of population did you





have in mind?

MR. AITKEN: Frankly, I had in mind the southern route, south of the great lakes. It may be that with this new company buying in, that may compensate for that factor. The matter may not be complicated any longer, since that has been announced.

MR. GRAUER: What is your feeling of the state of the economy here in Saskatchewan at the present time? Would you describe it as a booming economy, or a very good one, or good or medium?

MR. AITKEN: It has been a booming economy, I believe, and in many respects you would still think it was a booming economy. But there is not the same oomph in it that there was, and you only have to look at the dominion bureau of statistics statistics; naturally Saskatchewan is down in its retail sales which I think is one of the best indices we have of our economy. In spite of the fact that these sales are down, the picture seems to be very mixed. Recently we had some new industries announced for Regina, for which we were very grateful; but at the same time there has been a falling off in our retail distribution, which we ascribe to the inability of our farmers to turn their product into cash; and in the long run that may rectify itself.

MR. GRAUER: Aside from that wheat aspect of things, do I take it that conditions are good?

MR. AITKEN: Yes, I would say so. You



just have to look around the city to see the expansion that has gone on in the last 10 years; the number of new schools required to meet the needs, and so on. They are building a new collegiate now, with another anticipated in a few years' time. So I think I must answer yes, in spite of the fact that the incomes of the Saskatchewan farmers have been rather drastically reduced. I am a little surprised that the situation continues as bouyant as it does.

MR. GRAUER: There seem to be a good many projects just around the corner, judging from the representations which have been made to us.

MR. AITKEN: I think people have faith in the long-term picture. Of course we all have.

MR. GUSHUE: But the wheat situation casts a very heavy shadow?

MR. AITKEN: There is no doubt about that.

MR. STEWART: Could I return to this statement on page 3, referring to tariffs; I would like to make sure I have the correct implications of it. It seems on the face of it to suggest that western businessmen and members of the Chamber of Commerce, in their submission at least, are to some extent changing the traditional attitudes of the west to an attitude that suggests some modification of the Canadian tariff in the interests of the protection of these industries?

MR. AITKEN: We are suggesting we may have to change it. I do not know whether in fact we





are changing it.

MR. STEWART: You are not prepared to say there is a change?

MR. AITKEN: No. I think the traditional attitude is pretty strong here and it may take some time to break it down, but it seems to me it will come.

THE CHAIRMAN: When you say "we" you mean the executives of the two bodies which are supporting this brief?

MR. AITKEN: Yes; I am speaking of the community we represent.

THE CHAIRMAN: And the businessmen?

MR. AITKEN: Yes, that is right.

THE CHAIRMAN: Well, thank you very much.

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At 5.50 p. m. the commission adjourned.

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ROYAL COMMISSION  
ON  
CANADA'S ECONOMIC PROSPECTS

HEARINGS

HELD AT

EDMONTON, ALBERTA

November 21, 1955

Volume 9





Monday, November 21, 1955.

EDMONTON, Alberta.

The commission opened its Edmonton sittings in the Court House, on Monday, November 21, 1955 at 9:00 a.m.

Present:

Mr. W.L. Gordon, Chairman;  
Mr. Omer Lussier;  
Mr. A.E. Grauer;  
Mr. Andrew Stewart;  
Mr. Raymond Gushue;

Appearances:

Hon. E.C. Manning, Premier;  
Hon. A. Russell Patrick, Minister of  
Economic Affairs;  
Mr. W.E. Simpson, Q.C., counsel;  
Hon. E.W. Hinman, Provincial  
Treasurer;  
Mr. Lawrence E. Kindt, Consulting  
Economist;  
Mr. D.I. Istvanffy, Statistician;  
Mr. J.E. Oberholtzer, Deputy  
Minister of Industries and  
Labour;  
Mr. R.M. Putman, Deputy Minister  
of Agriculture;



Appearances, continued,

- Mr. F.T. Grindley, Director of  
Water Resources;
- Mr. Robert English, Statistician;
- Mr. T.A. Lang, Energy Resources;
- Mr. N. Berkowitz, Research chemist;
- Mr. N.H. Grace, Director, Research  
Council of Alberta;
- Mr. H.H. Somerville, Deputy Minister  
of Mines and Minerals;
- Hon. N.A. Willmore, Minister of  
Industries and Labour;
- Mr. H.G. Jensen, Deputy Minister  
of Lands and Forests;
- Mr. E.S. Huestis, Director of  
Forestry;
- Mr. R.J. Cooper, Statistician;
- Mr. I.N. McKimmon, Chairman,  
Petroleum and Natural Gas  
Conservation Board;
- Mr. Donald Quon, Chemical Engineer;
- Mr. K.J. Hawkins, Deputy Provincial  
Treasurer;
- Mr. Gordon E. Taylor, Minister of  
Highways;
- Mr. R.H. Cronkhite, Design Engineer;
- Mr. W.H. Swift, Deputy Minister of  
Education;
- Hon. A.O. Aalborg, Minister of  
Education;
- Mr. A.W. Morrison, Deputy Minister  
of Municipal Affairs;
- Mr. H.B. [redacted], Assistant Deputy  
Minister of Public Health;
- Hon. R.D. Jorgenson, Minister of  
Public Health;





Appearances, continued,

Mr. Arthur Arnold, Deputy Minister  
of Public Works;

for the province of Alberta;

Mr. Carl J. Anderson;

for the Eastern Irrigation  
District;

Mr. M.W. Mackenzie;

for Canadian Chemical and  
Cellulose Co. Ltd.

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THE CHAIRMAN: Shall we come to order, gentlemen? I call upon Mr. Patrick.

MR. PATRICK: Mr. Gordon and members of the royal commission appointed to investigate and report upon the long term economic prospects of Canada, it gives me great pleasure to extend a welcome to you on behalf of the government of Alberta on this, your visit to Alberta, where you will be hearing submissions during this week in Edmonton and Calgary. I believe it is the intention to first hear the submissions of the provincial government and then to hear further submissions by certain municipal bodies and other interested organizations.

I think we have agreed to present our provincial government submissions according to a program of which I think you have a copy. I might just say a word about that. That submission is actually in two parts. First of all we have a special submission which I am going to call upon Mr. W. E. Simpson, Q.C., to present. That submission is made up of six items; and I will leave it to you, sir, as to how we will proceed, whether you wish to take these items one by one, or whether you wish Mr. Simpson to read the whole brief at one time.

Then following that I am going to call upon Dr. W. E. Kindt, our economist, who has prepared or has co-ordinated this brief on Alberta's economic prospects. I will call upon him to introduce that.

I would like to say just a word about the preparation of the brief. We have found in





gathering this data, in making these projections, that as a result we have obtained information which we feel is invaluable to the government of Alberta. So often we get lost in our routine, and we just do not take time out to assess and evaluate our present condition. Looking at this material, I find that your terms of reference were very broad. I might add that at the time we should have started to prepared this material for the brief we had an election in Alberta, and then following that we had a reorganization of the cabinet. So I find myself as a new cabinet minister, in the portfolio of economic affairs, getting into this rather late in the day.

Then added to that the commission itself found it necessary to change its schedule, and we were moved ahead a week. For all these reasons I feel that we should ask that the door remain open for further submissions, for corrections or for extended explanations, and in that connection I have here one matter to which I would like to refer and to table with you under the heading of Freight Transportation.

Within the last few days, the government of Alberta has noticed from press dispatches that your commission has retained a transport adviser in the person of Mr. J.C. Lessard, former deputy minister of transport in the federal government.

If your commission proposes to examine into the freight rate problems of any or all of the several economic regions of Canada, this government would request that an opportunity be afforded to



place Alberta's position before your Commission and to state Alberta's views with respect to the Canadian freight rate structure.

Now I will call upon Mr. W.E. Simpson, Q.C. to present the special submission from the provincial government.

THE CHAIRMAN: Thank you very much, Mr. Patrick. Before Mr. Simpson presents his special submission I might just say that we have been hearing a great deal during the last few weeks about the charms of Alberta and particularly of Edmonton from Dr. Stewart, and we are all delighted to be here to see it for ourselves and to learn something of the great accomplishments which have taken place in this province in the short space of fifty years.

Mr. Lussier reminded me last night that this is our third visit to Edmonton since we were appointed to this commission. The first one was just on our way to the Yukon, but we were back here in August for the annual conference of the mayors and municipalities, and now we are here to hear your views as to the future of the province, and the views of the other associations and organizations who are going to appear before us.

I am sure the brief which you are about to present will be immensely valuable to us. You were good enough to let us have it in advance which has given us an opportunity to review its contents. All I would like to say at this moment is that we recognize the great amount of labour and thought that went into its preparation, and we are most grateful to the government,





to Dr. Kindt and to all the others who took part in its preparation.

Now, Mr. Simpson, if you would like perhaps it might be best for you to present your submission without interruption, and then if we have questions we can ask them at the end.

MR. SIMPSON: That is quite all right. I shall read it, then?

THE CHAIRMAN: Yes.

MR. SIMPSON: Mr. Chairman and fellow commissioners, this is the special submission by the government of the province of Alberta to this commission. The first portion is headed "Energy, the Key to Industrial Development and National Welfare."

It is axiomatic that industrial expansion and the effective development of natural resources depend on the availability of ample quantities of low cost energy, and that several related circumstances in the energy economy necessitate forward planning by government and industry if future energy needs are to be satisfied. Energy resources are physically limited and, except for hydropower, undergo drain through use. Much time is also necessary to bring some of these energy resources into production and even more time to supplement and/or substitute on a large scale, one source



of energy with another. Further, large scale investment funds and facilities are needed, whenever an increased total demand must be met through expanding of existing energy producing capacity or when the development of substitute sources of energy is necessary. Technological advances are steadily leading to increased efficiency in energy utilization and now point to new energy sources. But how soon advances in scientific knowledge will permit significant energy contributions from the atom, the tides, winds and the sun itself through direct use of solar energy is not now evident.

Recent significant increases in industrialization have been accompanied by population shifts as new natural resources come into development and as the productive capacities for others have been enlarged. It is evident also, that the per capita demand for energy is steadily mounting; this factor added to expansion in population from natural increase and immigration will undoubtedly lead to a tremendous growth in the future total energy requirement. These circumstances in





combination require that government and the energy industries endeavor to forecast and to provide for future energy needs on the most efficient basis possible. Indeed the complexity of the energy situation and the certainty of accelerating and great future energy demands suggest that such action is imperative.

Numerous private and several government studies of energy requirements and supplies have been made in the United States in recent years. Among the reports on these investigations those of the President's materials policy commission (Paley report) made to President Truman in 1952, and "Energy in the Future", a report prepared by Palmer Putnam for the atomic energy commission, are undoubtedly the most thorough and extensive. Recognition of the fact that no such background of information with respect to energy source materials and energy requirements, is available in Canada, points to the urgent need for a comprehensive and detailed study of these subjects, by a high level technical committee and on a continuing basis, if Canada is to make most effective use of its energy



resources in the interests of public welfare, industrial development and national security both now and in the foreseeable future. Consequently it is recommended that:

- (1) A Canadian energy committee be appointed forthwith by the Prime Minister of Canada and be responsible to him.
- (2) The committee be composed of well qualified technical personnel selected, preferably, by the president of the National Research Council on the advice of a nominating committee of his choosing.

It is recommended that committee personnel be chosen for high professional ability as the prime consideration, with reference however to geographical representation. Further it is suggested that committee members be appointed, half for a term of three years and half for a term of five years, at the end of the term of appointment replacements could be made in line with the need for any special technical representation and for rotation from the point of view of particular association and geography.

- (3) The committee be provided with specialist assistance as





required and call on whatever sources of information deemed essential for procuring data basic to a comprehensive and integrated study of the Canadian energy problem.

- (4) The committee be responsible for preparing a report on its studies and make recommendations as to those lines of action leading to the continuing availability of adequate quantities of low-cost energy. The committee report be presented to the Prime Minister of Canada and be made available by him to the premiers of the Canadian provinces who it is expected would consult with comparable provincial technical advisory committees, thereby enabling joint federal-provincial consideration and the ultimate initiation of policies as required in the public interests. The committee report be printed and made available to industry and the public.
- (5) The initial report of the committee and its projections be



continuously revised in the light of the developing situation and technological advances through research and a revised report be issued when such is deemed advisable but in no event later than five years after the initial report. Future reports to be issued not more infrequently than at intervals of five years.

Continuing energy studies of the nature provided for in the above recommendations should enable private industry and governments both to make the fullest and most economic use of Canada's total energy resources in the best interest of all Canadians.

The next section is headed "Industrialization in Western Canada."

The economy of western Canada would be better balanced by increased industrialization. Steady payrolls and more uniform consumer purchasing power are essential. Since 1945 the province of Alberta has had an active program of industrial development aimed at encouraging the establishment of new industries in Alberta.

It is suggested to the royal commission





on Canada's economic prospects that the government of Canada through the Department of Trade and Commerce, take a more active role in the encouragement of industrialization in Canada with emphasis on decentralization throughout all parts of Canada. A very minor effort in this field has been made to date by the Ottawa offices and a reassessment of Canadian government policy on this item would seem necessary.

Steady and successful efforts have been made in the trade field by Canada's trade commissioners. Trade commissioners are ideally located for making contacts with industrialists who might be encouraged to establish branch plants in Canada. The plan of using trade commissioners to help promote the industrial growth of the country may also be the means of helping soft currency countries to earn dollars for the purchase of agricultural products from Canada. Once industrialists are introduced to the Canadian field, provincial industrial development officers are ready and well prepared to provide the necessary details on the provincial and local level.



The attention of prospective industrialists should be deliberately directed to the whole Canadian field. Up to the present almost all of the new industries coming into Canada from commonwealth and foreign countries, have located in the central provinces. It is felt that in many cases the industrialists concerned have not had an opportunity to examine the industrial potentialities of other parts of the country.

Any diversification and decentralization of industry across Canada would be beneficial both nationally and locally. One important aspect to be considered is national defence. New military bases have been widely spread across Canada but facilities for national defence production are still largely concentrated in one area. A similar condition exists in the location of crown-owned corporations engaged in the manufacture of synthetic rubber and refining of uranium. In view of western Canada, and especially Alberta, having an abundance of by-products from natural gas, particularly propane and butane, consideration should be given to the establishment of a section of the





synthetic rubber processing in this area, close to the raw materials. The same would apply to the refining of uranium and other metals located in the north.

The advantages of having national defence production more widely scattered seem self-evident, and government-built defence plants at widely scattered points are indicated. Such plants might well form the nucleus for satellite plants quite independent of government financing, with the final result of a spreading and decentralization of industry across Canada.

The seasonal unemployment problem is largely due to the slackening of construction activity during the winter months. At least a partial answer to this problem would seem to lie in an ever-increasing industrialization program where year-round payrolls assume a greater proportion of the total labour picture.

In short, any federal plan which would tend to equalize the industrial picture across Canada would be beneficial to the nation, and on this basis the commission is asked to direct the federal government's attention to this problem.



The province of Alberta would be quite ready to co-ordinate her industrial development efforts toward this end.

The next section is headed "Highways."

From the earliest days of recorded history, highways have played an important part in the progress of civilization and today the rapid development of transportation by motor vehicles has made the highway a factor of first importance in the economy of a country. Having in mind the important bearing that adequate transportation facilities have on the economic growth and development of Canada, we herewith put forward the following submissions:

(a) In recognition of the necessity of providing adequate transportation facilities in Canada, the federal government should prepare a plan that it is prepared to follow in building a network of national east and west, and north and south highways throughout Canada; the federal contribution towards the cost of these highways should range from ninety per cent to a lesser percentage depending on the national importance of same. The actual construction of the roads should be under the jurisdiction





of the provincial government concerned, while the specifications, etc., should be worked out co-operatively by both federal and provincial governments.

(b) The policy of the federal government of the United States should be studied with reference to the assistance granted by that government toward the construction of federal and state highways. This type of dominion aid should be largely self-liquidating in the course of time by contributing to economic expansion generally throughout Canada.

(c) In order to facilitate and encourage proper development of the resources of northern Alberta and the Northwest Territories and for the purpose of encouraging tourist trade and capitalizing the assets of the province represented by the national parks, the dominion government should assume the responsibility of opening up the Northwest Territories, and part of the cost of the construction and maintenance of arterial highways to the north and to national parks.

(d) Construction of good highways in the national parks should be greatly speeded up. Canada is no doubt failing



to capitalize fully on the scenic attractions of these mountain resorts.

The next section is headed "Department of Agriculture."

On the assumption that the benefits to be derived by the people of Canada from the nation's economic prospects in 1980 will depend upon the development of her natural resources and the national policies adopted in every phase of her economic life, the government of the province of Alberta submits the following recommendations pertaining to agriculture for the consideration of the members of the royal commission on Canada's economic prospects.

1. In the interests of the development and conservation of the nation's soil resources, the government of Alberta recommends:-

- (a) that a federal-provincial advisory committee on land utilization and soil conservation be established;
- (b) that an integrated program of land utilization and soil conservation be developed on a basis to be agreed upon by federal and provincial Governments;





- (c) that the provinces be responsible for the implementation of the program agreed upon by federal and provincial agencies;
- (d) that the funds necessary to give effect to the land utilization and soil conservation programmes be provided from federal and provincial sources.

2. The government of Alberta recommends that surveys be completed with a view to building upstream storage reservoirs on rivers rising on the eastern slope of the Rocky mountains to reduce peak water flows and store the water for use in the winter when natural flows are extremely low. Such surveys would indicate where storage sites are available, as well as the details for their construction at the appropriate time. These developments would improve the supply of water for all uses and for the needs of the provinces which depend on these rivers.

3. The government of Alberta recommends that in order to insure the optimum



development of the land resources, the national treasury undertake to finance directly or through some form of federal-provincial policy a program of long-term credit for agriculture with provisions for the special requirements of young farmers and basing loans on approved farm management practices that are agreed upon between the farmer and a competent authority.

4. Inasmuch as the danger of introducing livestock diseases to Canada is accentuated by modern means of travel, the government of Alberta submits that the specific responsibilities of the federal and provincial governments in respect to the prevention and control of animal diseases should be clearly defined and that the matter of provincial embargoes against the movement of livestock, including the legal and financial responsibilities involved, should be determined.
5. The government of Alberta acknowledges the contribution of the government of Canada to the development of agricultural production and





informational programmes, but believes that without limiting the national application of these programs, their impact would be greatly increased if their detailed application within a province might be mutually agreed upon by the government of Canada and the government of the province concerned and the cost thereof shared on an agreed upon basis.

6. The government of Alberta wishes to express its approval of the Canadian vocational training programme as the latter applies to agricultural training and recommends that the programme be continued in an effort to provide better trained young men to assume the responsibilities of operating the farms of the nation.
7. It has at last become evident to all of us that the present grain marketing policy cannot hope to solve the grain surplus problem.

The one hope of successfully marketing our grain would seem to be the adoption of a policy of expanding credit to consumer countries which will enable them



to purchase our grain.

This can be accomplished in one of two ways:

(1) Canada can extend credit, as such, realizing that the credit can be discharged only when our customers are able to raise dollars through world market sources, this credit to be extended for the specific purpose of buying surplus products at agreed prices.

(2) We can accept payment in the currency of our customer countries, knowing full well that we must hold such currencies as reserves until such time as we find it in the interest of national economy to purchase such goods and services as the customer countries may have to offer. The price of such export grains must inevitably become a competitive one which will not encourage grain production on any other





basis than high efficiency  
and economic soundness.

It is suggested that these same  
marketing policies will eventually have  
to apply to all those agricultural  
products of which we now have an  
embarrassing surplus.

The next section is headed "Canadian Tax  
Structure."

It has become increasingly evident  
that the entire tax structure in Canada  
is imposing a drag on industrial progress  
and needs a thorough overhauling with a  
view to encouraging the promotion and  
expansion of primary and secondary  
industries in Canada.

It is common knowledge that the  
impact of the present Canadian tax  
structure is such that often industry is  
penalized for expanding its operations  
or reorganizing. The situation is  
unrealistic and unhealthy and tends to  
retard the orderly and proper development  
of our natural resources. The tax on  
real property is today the main source of  
revenue for municipalities and these taxes  
have already reached the danger point.  
Furthermore, there has developed a  
tendency to change rulings from time to  
time so that an air of uncertainty



prevails, and it is becoming more and more difficult for tax experts to advise taxpayers on their tax position in many cases, as for instance, whether or not a profit is a capital gain.

We strongly recommend that an exhaustive survey of the tax structure in Canada be made in the immediate future. This survey should, of course, embrace all taxes, federal, provincial and municipal.

Below we outline how present Canadian income tax law affects certain phases of the oil industry in Canada, namely amalgamations and mergers of oil companies and depletion and exploration allowances applicable to the oil industry, all of which has a direct bearing on the national economy.

We wish to emphasize that we are not advocating that Canadian companies receive any special advantages over outside capital, but merely that they be allowed to compete on an equal basis in every respect.

Then we go on with a section headed

"Amalgamations and mergers of Oil Companies."

Within the last few years a number of amalgamations and mergers of oil companies have taken place or been



considered. Others are contemplated. These amalgamations seem to be a normal consequence of the development and growth of this comparatively new industry.

In the early stages of the industry a number of small companies are formed with limited cash resources and comparatively small acreage to develop. Sometimes they expend their moneys in the development of their own properties. Frequently they take small participations in the development of the properties of other companies. Some of them prosper and expand greatly, and have no trouble in inducing new capital to participate in their ventures with the result that they grow into strong independent producers.

Others do not prosper to the same extent with the result that they find themselves without means to acquire and develop additional properties or to participate in the ventures of those more prosperous than themselves.

In some cases the share of market allowables accruing to these smaller companies do not produce sufficient income to the companies involved to permit an economic operation and produce nothing at all for expansion of





activities, a situation which would be aggravated by cuts in allowable production or reduction of market prices.

Yet companies facing this situation may have sufficient production or potentially productive properties, or both, to be attractive to stronger companies, who could handle their production on a more efficient basis and who possess the means to explore and develop the properties.

In these circumstances the obvious solution to the small company's problem is to merge its assets and undertakings with those of a stronger company or for a group of smaller companies to amalgamate, in each case with a view of reducing overhead and operating costs and providing for the more efficient and economic development of the properties they control and for the provision of more adequate capital for the purpose.

Sometimes a new company is formed to which the assets of the amalgamated companies are transferred. Sometimes the assets and undertakings of one or more companies are taken over by a company already engaged in the business.

In practically all cases the



merger results in the shareholders of the merged companies receiving shares of the new company formed to take them over, or of the company by whom the assets and undertakings are acquired.

There is no provision in the Income Tax Act by which such transactions may be carried out without the successor company losing the benefit of the deductions allowed in respect of expenditures for drilling and exploration costs to which its predecessor or predecessors would have been entitled. This can offer a serious obstacle to an amalgamation which would otherwise be to the benefit of all concerned.

As the fairness and propriety of the present allowances for drilling and exploration costs is now conceded, it would seem equally fair and proper that means should be devised whereby the benefits of these allowances will not be lost to an amalgamated enterprise, particularly where, had no amalgamation taken place, the benefits of the allowances would have accrued to and been enjoyed by the predecessor companies.

The large major oil companies are





not affected to any extent. Those who suffer most are the smaller companies, mostly Canadian. Here again Canadian capital is at a disadvantage compared with American capital.

Then we have a section entitled "Depletion Allowances for Oil and Gas Wells."

In Canada depletion is only granted after a company has charged off all costs of explorations, which include ventures in any part of Canada. The company may produce from a lease in one part of Canada and be exploring in another part a thousand miles away. It is becoming quite apparant that it may recover all the oil out of that lease and never be able to claim any depletion for income tax purposes on this wasting asset. It would be more realistic to permit depletion to be claimed after the costs in connection with that lease have been recovered, but disregarding expenses incurred in other parts of the country. This, for instance, is the method used in the United States. United States companies operating in Canada can claim depletion on Canadian properties on that basis for United States tax purposes and, therefore, Canadian companies are at a serious competitive disadvantage.



J. Gerald Godsoe, vice president of the British-American Oil Company Limited stated in part at the 1955 annual meeting of the company's shareholders:

"The present regulations prescribing the method for computing income subject to depletion have the effect of deferring any allowance in the case of a taxpayer who continues to engage in an active exploration programme to discover new reserves. In order to obtain an immediate benefit by way of depletion allowance under the present regulations, a taxpayer would have to abandon, or at least curtail, any further expenditures for exploration work, and confine his attention to the producing properties which he has already acquired. In other words, if a taxpayer continues to search for new reserves, the very thing which the depletion allowance is intended to encourage and something very much in the best interests in the development of our country, he will, under the present regulations, be effectively prevented from obtaining any



immediate benefit for depletion allowance."

Mr. Godsoe also emphasized the important place of the United States depletion allowance, calculated on gross revenue, in development of oil and gas reserves in the United States and said, in part:

"Authorities not fully sympathetic to the special problems of oil development, could set in motion, complex regulations detrimental to the industry and, in consequence, to the entire economy."

Then we have a section entitled "Exploration Allowances."

United States corporations can spend money on explorations in Canada and charge such costs against their United States income, so that they are in effect only spending 50 cents of their own money and 50 cents of federal tax money. As a result of this, United States corporations can operate as world-wide companies and follow oil wherever they can find it. Canada confines the allowances for drilling and exploration costs granted to Canadian companies to operations within Canada except for a comparatively minor





exception, and therefore Canadian companies cannot compete on an equitable basis with American companies in operations outside of Canada.

Our next section is headed "Dominion Monetary Policy."

The inadequate monetary policy on the part of the dominion government during the depression years operated with disastrous effect upon the western provinces. By ignoring the internal economy and permitting the external exchange value of the Canadian dollar to be influenced by that of the United States dollar, the internal situation in Canada was linked to the disastrous effects of the depression in other countries and the major burden of this was thrown upon the producers of the western provinces.

Western producers were forced to sell their products considerably below cost. They had to meet debt obligations which, in terms of their production, often amounted to one-third of the principal owed by way of annual interest alone and they received no return for their products to meet these charges. For instance, when the price of wheat, No. 1 Northern cash, fell to around 40 cents at Fort William, thus netting approximately 18 cents a bushel to the Alberta farmer,



it meant that on an 8 per cent loan contracted when wheat was \$1.25, the farmer was expected to pay over 50 per cent interest in terms of production, but the price he received for his product was but a fraction of the costs of its production. Nevertheless he was compelled to pay high protected prices for machinery and household goods, increased as these were by the maintenance of high freight rates.

Alberta suffered the most by virtue of being a comparatively young province which was rapidly settled and therefore had relatively heavy external obligations to meet. Also she suffered since being at the peak of transcontinental freight rates, she had to shoulder the resulting adverse effects on the prices of both her exports and her imports.

The complete collapse of the economy of the western provinces which resulted was inevitable and was due largely to the failure of the dominion government to meet the requirements of the situation by means of a realistic monetary policy.

A monetary policy administered in the interests of the nation is essential in Canada. What happened as above set forth in depression years must not be





allowed to happen again. The dominion government has constitutional authority to govern currency and credit. It is generally recognized that the only concrete backing for either currency or credit is the body of consumable goods and the desirable services which the people are able and willing to produce and render. This suggests that a sound monetary policy must be one which so regulates the supply of currency and the flow of credit that the people of Canada can at all times have the means to procure and consume all they need or desire of the goods and services which Canadians are prepared to produce and render in abundance. It seems fair to assume also that this supply of currency and credit can be made available by other means than interest-bearing loans. No other monetary policy is likely to regulate credit and currency in the best interests of the economic life of the nation.

THE CHAIRMAN: Thank you. We will mark this submission Exhibit 46.

When you were talking about industrialization, and the desirability of decentralization, you mentioned the need for steps to be taken to promote decentralization. I suppose that of the new plants coming to Canada, a fair percentage come from the United States. It is my



understanding that any inquiries that are received by either the Canadian embassy in Washington or by any of the Canadian consuls across the United States are channeled through the Department of Trade and Commerce and then sent out to each of the provinces. There are certain industries that quite obviously going to Alberta and will presumably continue to come here. There are others, I expect we will hear more about as we continue our tour across the country, where it is more advantageous to locate in the centres of larger populations. I guess this is one of the facts of industrial life, and I do not know what you can do about it.

If you have any suggestions I think it would be very useful to us to have them.

MR. SIMPSON: Mr. Martin is here, and he is fully familiar with that matter.

THE CHAIRMAN: Perhaps we will ask him to talk about it as we proceed through the brief, then.

There was one statement on page 11, concerning agriculture, about which I would like to ask you. You say:

"The one hope of successfully marketing our grain would seem to be the adoption of a policy of expanding credit to consumer countries which will enable them to purchase our grain. This can be accomplished in one of two ways."

I wondered whether you had any preference



as to either of the two ways which you suggest there, or whether really they are just put forward as alternatives.

MR. SIMPSON: Mr. Hinman, provincial treasurer of the province of Alberta, is here and he will answer that question.

MR. HINMAN: They were put forward as alternatives, although I think probably we would favour the second of the two, because by accepting the currencies of those countries we will have completed the negotiation. If they cannot discharge the credit which we give them to purchase our wheat, then certainly they could not discharge the greater credit if we were to charge interest. Consequently I think we would prefer the second alternative.

THE CHAIRMAN: Have you any views as to the limit on the aggregate amounts which you would be prepared to accept in terms of currencies of other countries which could not be readily convertible?

MR. HINMAN: Yes, I think so. You will notice we have said that the prices would have to be such that they would be tied pretty well to sound economic farm practices. By that we mean we should not establish the price at \$1.50 or some such level; it should be a price which would be conducive to the economic production of grain, or any other product which it was desired to stabilize. If that were the case I think we should be prepared to accept their currencies for that surplus which we think is beyond any reasonable need on the part of Canada in the foreseeable future.





THE CHAIRMAN: So the price would be a lower one, and the net result would be that there would not be as much grain produced?

MR. HINMAN: That is right.

MR. GRAUER: Is that not another way of saying that you advocate a series of barter arrangements? The only purpose of having this currency would be to buy something back from that country, would it not?

MR. HINMAN: Of course that would be the ultimate use of the currency; and in establishing price I suppose we would have to go largely by what those countries would be willing to pay. Naturally we would achieve the best price we could, but also naturally we would not refuse to sell unless the price became so low that the economic production in Canada was at stake.

THE CHAIRMAN: As far as the United Kingdom is concerned, I suppose there is no assurance that they would agree to any such proposal?

MR. HINMAN: I think there is no assurance that any country would, but it seems sensible to believe that the United Kingdom would be one of those who would find it most acceptable.

THE CHAIRMAN: I am not so sure, but perhaps you are right.

MR. GRAUER: Would that mean you have in mind doing away with the international wheat agreement? This looks like unilateral action.

MR. HINMAN: Well, I may be out of order to say this on behalf of the government, but I



think the international wheat agreement has built up a problem that even it seems destined not to handle very well. Whether we like it or not, I think it will either have to cease as an agreement or the countries will have to agree to some very definite limitation on production.

THE CHAIRMAN: On page 16 of Mr. Simpson's brief, in the second paragraph, I see this:

"The large major oil companies are not affected to any extent. Those who suffer most are the smaller companies, mostly Canadian. Here again Canadian capital is at a disadvantage compared with American capital."

I am not sure whether you meant "here again", whether it was intended to have some specific significance, or whether it was just a phrase that crept in, so to speak.

MR. SIMPSON: Well, that word "here" might have been in a better place if it were used at the end of the third section having to do with exploration allowances.

THE CHAIRMAN: What I mean is, do you think Canadian capital is at a disadvantage compared with United States capital?

MR. SIMPSON: Yes, undoubtedly. May I explain that?

THE CHAIRMAN: I understand the next





point, about the depletion allowances.

MR. SIMPSON: In connection with these mergers, I know something about them personally, and I may say that in the preparation of this entire section I have been aided by Mr. Gordon Burton of Calgary, who has written a book on these subjects and is recognized as an outstanding authority.

THE CHAIRMAN: We hope to hear from him in Calgary.

MR. SIMPSON: The point is this, sir; that the large major oil companies are not merging. That is just not done these days; they are not concerned with mergers.

We have large numbers of small companies which were formed in Canada, here in Alberta, in Toronto, in Montreal. People got together to form syndicates, and then probably converted them into companies, and there are thousands of small shareholders. It is that type of company that is finding itself compelled to merge in order to survive.. It will merge with probably one or two or more other oil companies, or be absorbed perhaps by a larger independent company. The consequence is that these small shareholders, mainly Canadians, are affected because they are concerned with those small companies.

THE CHAIRMAN: I see. I think we are familiar with that point of view. Perhaps it would be better if we asked further questions as the brief is proceeded with, Mr. Patrick.



MR. PATRICK: Then I would like to call on Dr. Lawrence C. Kindt, who co-ordinated this brief on Alberta's economic prospects, to just briefly introduce it.

THE CHAIRMAN: Very well, Dr. Kindt. We will mark the brief, Exhibit 47.

MR. KINDT: Mr. Gordon and members of the royal commission, ladies and gentlemen: I think it is only fit and proper that I should take the five or ten minutes which are allotted to me and try to draw together and picture to you some of the difficulties we have been able to surmount in the preparation of Alberta's economic prospects. We put this document together hurriedly, and as someone has said, when you are working at high speed you do not have time to accomplish your best work.

We have looked upon it as a privilege to bring together between two covers the economic picture of Alberta. There are some parts which we would have liked to go into in more detail and to have done more analytical work, but there was not time for that. So I should like to say we offer no excuses for the document we have prepared. Later that will be revised, and we hope to get it into print and let you have another 45 copies.

I want to say this, however, in my five minutes; that the credit for putting this undertaking across must go to our good and mutual friend Hon. Mr. Patrick, his deputy minister, Mr. Moore, and Mr. Martin. These are the men who have



been the guiding lights in preparing this volume and putting it into circulation. They brought me into the picture, so any credit that is due must go to them and the people who prepared it. My work has been to simply sit down with each of them, to help them with their outline, and give them all the technical guidance I can; to read their reports and make suggestions and comments. Our working arrangements with the various departments have been that they were responsible for what has been written. If I made certain suggestions and they did not accept them, they were the final judges. In other words they sat in judgment on whatever suggestions were made, and each particular department is responsible for its own submission. So here today I hope the commission, in addressing their questions and so on, will ask the specific departments, following the outline, for specific answers.

I am very glad we have been able to have representatives from each department here today. I do feel that in connection with this submission, both what has been said and what there is between the lines, the person who can explain it best is the one who has prepared the submission and done the writing. I well remember, at the Manitoba sitting of this commission, listening to Mr. Gordon ask one of the ministers a question. The minister turned to his deputy, and neither one was able to answer. The Manitoba minister said, "I am very embarrassed. I have not the proper wizard behind me."





I have been working with these men who are the authors of the various submissions, but up to that point I had never known what to call them. Now I know. We have them all here today, and I hope that as the reading of the report progresses we will have an opportunity to hear from each of them.

Speaking as an economist, I regret that there is not an opportunity here today, within the time available, to draw the economic threads through the various submissions from the province of Alberta. I should like to have done that, if I had time; but failing that I think probably the best procedure, which we have decided to follow, is to take up each submission and have the questions asked on that particular submission.

I hope the commission may be able to follow the submission as it is presented, for two or three reasons. The first is because we have certain people here who have sort of planned their time in order to be here at the convenience of the commission, and in the second place I think probably that will bring out the type of discussion which we hope will be offered here today.

So, Mr. Chairman, I see my five minutes are up, and I will turn the brief over to you, making any references I can as we proceed through the different items.

MR. PATRICK: May I suggest that the person responsible for each of these chapters read the brief summary we have prepared, just to preserve



the continuity.

THE CHAIRMAN: I think that is a very good idea.

MR. PATRICK: Then we will start in that order, and the brief on population is first. That will be discussed by Mr. Istvanffy.

MR. ISTVANFFY: This is the summary in respect to population. Experience of forty-five years indicates that 15 to 20 per cent of the native born Albertans leave for other provinces or for the United States. Increased industrialization and improved social immunities will undoubtedly serve to retain more of the native born and to attract immigrants, and it is expected that immigration and emigration will tend to balance.

Thus an analysis of the historical data leads to the conclusion that Alberta will retain approximately the equivalent of the natural increase in her population. The projection which we have made is therefore based largely on the natural increase, and has been adjusted to conform to variations in the age composition of the 1951 population.

It is estimated that Alberta will have 1,850,000 people, more or less, by 1985. As it is felt that increased industrialization and local processing of the raw materials of mine and field are better in the long run for the country, the process can be hastened by embarking upon a policy of actively stimulating industry. This in turn will stimulate population growth and further industrialization.





THE CHAIRMAN: There is one question I would like to ask in connection with a remark on page 2 of the brief. You suggest that the most suitable arable land in the province has been settled. I thought somewhere else in the brief there was a suggestion that there are further areas in the province that could be developed and settled at the appropriate time, and I would like to be clear on that.

MR. ISTVANFFY: Would you care to leave that until you are speaking to Mr. English, of the agriculturel department?

THE CHAIRMAN: Very well, but I would think it would have a bearing on your population estimate.

MR. ISTVANFFY: The word is that most of the suitable arable land has been settled.

THE CHAIRMAN: Very well. Then on page 4, at the top of the page you say that if the federal government decides that increased industrialization and local processing of the raw materials of mine and field are better in the long run for the country, the process can be hastened by embarking on a policy of actively stimulating industry. I wonder if you would like to enlarge on that a bit. How do you go about whatever policies you have in mind for stimulating immigration and industry?

MR. ISTVANFFY: I do not want to say too much about that myself; in his brief I think Mr. Simpson outlined some of the ways of stimulating industry, and Mr. Oberholtzer and Mr. Reiersen are prepared to go into that in some detail, I believe.



We feel, by and large, that if we stimulate industry, immigration will be stimulated as well, either from other provinces or from overseas, as the case may be.

MR. KINDT: Economic opportunity is what we look to with respect to getting immigrants. If we have the proper decentralization and the development of new industries within the province of Alberta, and there is economic opportunity here, you will not only have a stimulation in our birth rate but also an attraction to people abroad who wish to live with us. Probably Mr. Oberholtzer would like to add something to that.

MR. OBERHOLTZER: It is really a different matter. It seems to me that this involves a number of sections. We are dealing with population at the moment, but as soon as you deal with the encouragement of industry you are into the industrial development section. Is that the procedure you wish to follow?

THE CHAIRMAN: I do not quite understand.

MR. OBERHOLTZER: Do you wish the answer to come during the population discussion or during the industrial discussion?

THE CHAIRMAN: I don't mind, as long as there is a good answer.

MR. OBERHOLTZER: Because it actually has reference to the point brought out in Mr. Simpson's first submission, regarding the encouragement to industry to come to a province, and the decentralization



thereof.

THE CHAIRMAN: We will leave it, then, until we come to the industrial section.

MR. KINDT: Don't forget to ask it.

THE CHAIRMAN: If I do, you remind me.

Then here is a question on a slightly different note. On page 7, talking about the marriage age, you mention that during the depression years the average age of brides dropped, and I would like to know why. I thought it was just the reverse.

MR. ISTVANFFY: Perhaps it is just felt in those cases that two can live cheaper than one.

THE CHAIRMAN: That may be true in Alberta. Was it just a coincidence, or was there any significance to it? Have you any thoughts or theories about it? It seems to me that just the opposite was the fact over the country as a whole. Perhaps it is not an important point; I was just curious about it.

MR. KINDT: However, I may say that the population figures of the province of Alberta gave Mr. Istvanffy that result. We have discussed it briefly. The point did not appear too important, and we did not probe very deeply into it; but we were somewhat surprised at the very thing which you have mentioned. However, that was the result our figures gave us. There could be something wrong with the basic figures. We did not have time to go over them and analyze them.

THE CHAIRMAN: I do not suppose it is very important.

MR. GUSHUE: On page 3 this statement





is made:

"It may be taken as a general postulate that an increase in population is desirable up to the point where the population begins to press on natural resources."

Is the reference there to the natural resources of the province, or could it be to a wider area?

MR. ISTVANFFY: This statement arose out of discussions which occurred while we were drafting this section. Two or three people mentioned this pressure of population on resources, on natural resources, and I think the statement would apply to Canada as much as to Alberta alone.

MR. GUSHUE: It is not intended to be limited to the province?

MR. ISTVANFFY: As far as either Canada or Alberta is concerned, when you compare it to the older countries of the world, from your very area it is bound to be generations before we press on our natural resources.

MR. GUSHUE: The reference is to the natural resources of Alberta, then?

MR. ISTVANFFY: Yes.

MR. GUSHUE: But it is not necessarily limited to those?

MR. ISTVANFFY: That is right.

THE CHAIRMAN: Before we start in on the next section, dealing with agriculture, in order



that we may proceed with the brief without any break I think we should take a short recess now for ten minutes.

---Recess.

---After recess.

THE CHAIRMAN: Shall we come to order, gentlemen?

MR. KINDT: Mr. Gordon, as a matter of procedure we have here a summary of Alberta's brief, which has been prepared by each of the departments. It was the intention that each department head should read his particular part of this summary, which is contained in this news release, in order to orient the thinking of the commission and of those here to the particular subject under discussion.

May I suggest that copies of this summary be distributed to the members of the commission and also to those who will be called upon to present the different sections. If we could read these we would strike oil just a little bit quicker than by reading the entire summary in the brief.

THE CHAIRMAN: Very well, if you have the copies.

MR. KINDT: I would say one other thing. This particular table is being reserved for the group whose submission is being discussed, and if the minister and the deputy minister and the research worker or workers would come up and assemble around this table they would be in a position where they could





go into a huddle if necessary and decide among themselves as to which one would answer the particular question.

The next, I suggest, is agriculture.

THE CHAIRMAN: Will you read the introduction?

MR. PUTNAM: Mr. Gordon and gentlemen of the commission, this is the summary of the report on agriculture, and may I say that the figures with respect to grain, wheat and livestock are somewhat changed from the original submission that was presented to you.

We estimate that occupied farm land in Alberta will increase from 44.5 to 47.7 million acres, an increase of 3.2 million acres, between 1951 and 1980. A total of 3.6 million acres of new land will be improved in the period, increasing the area improved from 22.3 to 25.9 million acres.

The disposition of improved land in millions of acres in 1980, with 1951 figures in brackets, is estimated as follows: wheat, 5.7 (6.4); coarse grains, 9.1 (6.4); summerfallow, 5.4 (6.2); and other improved land, 5.7 (3.3).

A change toward mixed farming will be most evident on our black and



grey wooded soils.

The number of livestock produced in Alberta in 1980, with estimated production for 1954 in brackets, is forecast as follows: cattle and calves, 1,270,000 (750,000); and hogs, 3,880,000 (2,046,000). We suggest that sheep numbers will increase, but since the industry is presently in the process of readjustment, the future for the industry is not clearly indicated.

As compared to 1954, the production of dairy products is expected to increase 44 per cent in the forecast period, poultry 60 per cent and the production of honey by 100 per cent.

Progress is forecast in the wider application of mechanization on farms particularly as applied to livestock production. Utility will be emphasized in the construction of farm buildings. The electrification of farmsteads and the installation of water and sewerage systems in the farm homes should be almost completed in the period.

The settlement and full development of our presently irrigable land will likely continue throughout the forecast period. The development of our



irrigated lands is retarded, due to limited population in the area which provides a market for crops, such as sugar beets, that under favorable circumstances can be profitable under irrigation.

Ultimately, the maximum utilization of available water resources for irrigation and industrial uses in western Canada, will be needed. The full development of these resources will require planning including the control of water flow on the eastern slope of the Rocky mountains.

THE CHAIRMAN: Before we ask you any specific questions, I think it would be helpful to us if you would care to give us a brief description of the type of farming areas in the province. Presumably they are not the same throughout the province, and we are ignorant about it. If you would give us a brief description I think it would help us quite a bit.

MR. PUTNAM: Well, there are roughly three types of farming, I suppose you would call it, in Alberta. First we have our grain farming, which is confined generally to the southern areas, where grain is the principal product produced, wheat being the most important.

Then we have our mixed farming areas, which are confined to the northerly and northern parts of the province. On those farms normally some wheat is





grown, oats and barley, and the farmer raises livestock in numbers. Sometimes the farm may be very highly productive of livestock, and in other cases the farmer may have a smaller number of several different types. For instance, he may have beef and dairy cattle on the same farm. Another farm may have straight beef cattle, or it may be a dairy farm, and that applies all through the central and northern part of the province, particularly in those soils we call the grey wooded soils.

The third type of farming would be classified as irrigated farming, or the production of specialized crops. In the irrigated districts you have many mixed farms which would produce livestock, and on a number of the farms in the south, in the irrigated districts, they produce such specialty crops as sugar beets and canning crops. Those would be classified as straight irrigated farms.

That would be just a quick, rough answer.

THE CHAIRMAN: You mentioned in the brief that you expect that by 1980 another 3.6 million acres of new land will be improved in Alberta. On those 3.6 million acres what type of produce will be grown? What type of produce will they be designed to produce? Will they be mixed farms?

MR. PUTNAM: The bulk of the 3.6 million acres will be in the northern sections on the grey wooded land, except for the development of land in irrigation districts. A great deal of that land is in production now, of course. It will be simply transferred



from the production of grain, we will say, to the production of irrigated crops.

THE CHAIRMAN: You think there will be sufficient markets for those additional crops?

MR. PUTNAM: We certainly hope so.

THE CHAIRMAN: On the subject of irrigated lands, could you tell us what the average cost per acre has been of the lands in Alberta that are being irrigated?

MR. PUTNAM: I will ask Mr. Grindley, the director of our water resources, to answer that question.

THE CHAIRMAN: What was the average cost per acre of the irrigation projects in Alberta?

MR. GRINDLEY: The last project that we are working on now, the St. Mary and Milk River development, is costing about \$50 an acre for water distribution.

THE CHAIRMAN: And the earlier developments?

MR. GRINDLEY: They were much less than that; around about \$30 an acre.

THE CHAIRMAN: I understand from your brief that you are not in favour of further expenditures on irrigation until markets are assured. Is that a correct interpretation?

MR. PUTNAM: The development of irrigation and expenditures on irrigation are going on all the time, and the program that is in hand now will not be completed for possibly five years, or even longer. Further development beyond the present programme





has not been decided by the government yet.

THE CHAIRMAN: But you do make the statement:

"In our opinion the expenditure of public funds in the further development of irrigation should not be undertaken without due consideration being given to the development of land presently under the ditch."

That is one statement, and I rather gathered the impression that you are against further irrigation schemes until you are satisfied that markets for the crops, and the appropriate crops for these irrigated lands, are available.

MR. PUTNAM: Yes, I think that is correct. The development of irrigation should be determined by the need of the markets for the crops.

THE CHAIRMAN: And am I right in thinking from your brief that the lands that are presently under irrigation have not been converted to the crops that you might have intended them for?

MR. PUTNAM: That is correct. We feel that too much of the land under irrigation is still producing grain rather than specialty crops which should be grown, with that high priced land. The reason for that is that there is not a market for, say, sugar beets. We are now producing sugar beets to the extent the market can absorb the sugar.

THE CHAIRMAN: So you think it is foolish



perhaps, to spend money on irrigation projects when all presently irrigated lands are not being used for the purposes for which they were intended?

MR. PUTNAM: To an extent.

THE CHAIRMAN: We have been hearing a great deal about markets in both Manitoba and Saskatchewan, but you have said little about markets in your brief. In Mr. Simpson's submission this morning he did refer to your proposal for, as I understand it, getting rid of the present surplus of wheat and also what should be done if similar surpluses occur again.

I would just like to ask a question or two about your policy in that connection, so we will be clear on it. As far as the present surplus is concerned, as I understand it the policy would be to ship that surplus to any countries that were prepared to accept it, and in return to either extend credits to those countries or accept their local currencies. Is that correct?

MR. PUTNAM: That is the proposal.

THE CHAIRMAN: I think Mr. Simpson made that clear. That is presuming, of course, that the countries in question will agree to those kinds of financial arrangements, which in some cases they probably would.

The second part of the proposal that was made to us this morning, however, I would like you to develop for us, if you will. I would like to read it again:

"The price of such export grains must inevitably become a competitive



one which will not encourage grain production on any other basis than high efficiency and economic soundness."

Would that be a fluctuating price? Is it your idea that in times of surplus the price would be dropped so that people would go out of the production of grain? I am not quite clear on this point; in fact I am not clear on it at all.

MR. PUTNAM: Hon. Mr. Hinman, in discussing that matter this morning, I think said about as much as I can say on it. I think his idea was that the price would be a fluctuating one that would put land out of the production of wheat when the price went down, and so equalize things.

THE CHAIRMAN: And would the farmer be encouraged to convert to something else?

MR. PUTNAM: By "encouraged" do you mean some kind of a payment, such as was made in 1941 to 1943 under the wheat acreage reduction plan?

THE CHAIRMAN: In some cases I gather that you can only grow wheat.

MR. PUTNAM: Well, the farmer would convert. If he did not grow wheat he would convert to something else, or perhaps he would summerfallow the land, in which case it might produce even more in the following year. Or perhaps he would be persuaded to put it into grass and let it rest for a few years.

THE CHAIRMAN: And what does he do in the meantime?





MR. PUTNAM: Well, not all of his land would be transferred, of course.

MR. PATRICK: Unfortunately Mr. Hinman had to catch a plane and is gone, but I think what he had in mind mainly was the fact that there is grain grown in Alberta on land that we might call marginal, and he feels that price should not be sufficient that it would encourage grain grown uneconomically in those particular places. It seems to be the feeling in Alberta that grain farming is the easy way to farm, and if a person can make money in grain farming he is going to do so, whether or not it is economic.

I think that is what he had in mind, that we should not encourage marginal land to be put into grain growing.

THE CHAIRMAN: All last week we heard a great deal of discussion about the present system of marketing wheat. We also heard a suggestion that the system be extended to the marketing of livestock. We heard suggestions that there should be minimum price guarantees, that there should be crop insurance schemes, and also that long-term credit facilities should be provided for farmers. Those are all policy questions.

On the other hand, to the extent that they are long-term policy questions, they are of concern or interest to us, because each of them will have some bearing on the probable production over the next twenty-five years.

I wondered whether you or somebody else, perhaps, would like to give us your views on these



various questions. Or perhaps you would prefer to leave it until this afternoon.

MR. PATRICK: Since Mr. Manning is going to be here this afternoon I wonder if you might pose those questions to him.

THE CHAIRMAN: I think that would be a good suggestion. Perhaps if you are talking to him you might find out whether he would find it convenient to discuss subjects of that sort, or if he would sooner have somebody else discuss them.

MR. KINDT: I am told that the Minister of Agriculture is ill this morning. He just came back from the Royal Winter Fair in Toronto.

MR. GRAUER: In Exhibit 46 the second recommendation is:

"The government of Alberta recommends that surveys be completed with a view to building upstream storage reservoirs on rivers rising on the eastern slope of the Rocky mountains, to reduce peak water flows and store the water for use in the winter when natural flows are extremely low. Such surveys would indicate where storage sites are available, as well as the details for their construction at the appropriate time. These developments would improve the supply of water for all uses and for the needs of the





provinces which depend on these rivers."

I would be interested to have some elaboration on how you envisage that would work out.

MR. GRINDLEY: Was there any particular phase of that you would like discussed?

MR. GRAUER: It is going to be interprovincial, and obviously you would need some body which is larger than a single province. Would this be the federal government, or a joint body of the provinces affected?

MR. GRINDLEY: We have a joint body now, with one representative from each of the provinces and two from the dominion; that is the joint water board. It could be that body that would function to carry out these recommendations.

MR. GRAUER: We have heard something about irrigation schemes. If there were any shortage of water -- I do not know if that is a possibility, but it is in some of the states of the United States, for instance, where there is always a tremendous controversy about who has the power to allocate the water. I take it that as far as Alberta is concerned, this province is willing to share the waters arising in the Rocky mountains and flowing through Alberta?

MR. GRINDLEY: That is quite right.

MR. GRAUER: And would not claim to have the first use of those waters?

MR. GRINDLEY: No. I think we have



always wanted to cooperate with the other three provinces.

MR. GRAUER: The chief thing involved, then, would be a board which would allocate the waters, or work out a plan for allocation?

MR. GRINDLEY: Yes.

MR. GRAUER: On the question of grain, in the section to which the chairman referred it says the one hope for grain is these two marketing plans. What has been the experience here? Have you records that make you feel pretty confident there will not be crop failures in the future? You seem to rule out that means of remedying surpluses.

MR. PUTNAM: We certainly have no records that indicate that there will not be crop failures in future.

MR. GRAUER: You expect there may be, then?

MR. PUTNAM: I think it is very likely there will be. There are no definite cycles, but even in the lifetime of most of us here there have been several periods of drought and periods of wetter years. This present period started about 1938, and we have not had a serious crop failure since that time. But from 1931 to 1936 we had bad droughts in the southern part of the province.

MR. GRAUER: Have you any conclusions on how that might work out over a period of time, or does it appear to be pretty unpredictable to you? Obviously if over a period of years your drought years offset



your good moisture years, the question of surplus is a different kind of problem. It is a problem affecting a relatively short run of years; it is not a permanent problem.

MR. PUTNAM: Mr. English has a little bit to say on that.

MR. ENGLISH: We have records of crop production in Alberta going back to at least 1908, and unofficially back to the turn of the century. We may expect that the cycle will run again pretty much as it has; I mean that the cycle of crop yield will run pretty much as it has in the last 50 years.

I think perhaps the government had in mind that we have an exceptional wheat situation in the world now, and that this calls for an ad hoc policy in respect to the marketing of wheat.

I do not think I can make it any clearer than that.

MR. GRAUER: Referring to the ad hoc policy, if Canada follows a policy along the lines suggested, based upon history what do you think the policy of the United States would be, which also has a surplus?

MR. ENGLISH: I notice by the Paley report that they anticipate exporting. I would guess, not knowing the exact figures now, that they may export the same quantity of wheat in 1975 that they were exporting in 1950. So I would not expect that they intend to be out of the wheat exporting business for a while.





MR. GRAUER: The situation, I believe, is this. You say you are not depending on drought years to offset the present surplus, but you think something should be done more immediately, and the suggestion is that credit be extended, or that we go into unilateral arrangements with purchasing countries.

If we did that, I am asking what you think would be the effect upon other nations which also have surpluses of wheat to export. To make it specific, let us take the United States, which feels quite keenly about its surplus wheat problem. Do you imagine that they would let us get rid of our surplus while they kept theirs; or do you think they would go into the same field?

MR. ENGLISH: It may well result in some lowering in the price of wheat; that is, in the world price.

MR. GRAUER: If it came to the position of competition between the United States and Canada, let us say, in extending credit or, for that matter, going into unilateral agreements, do you think Canada has the same power to do that as the United States has?

MR. ENGLISH: I was about to suggest that it might result in other nations following the same practices which have been followed in the United States for some time now. Who would win in the price war I would not feel too definite about.

MR. GRAUER: Well, we are pretty big,



but not quite as big as they are. That would mean the lowering of prices, and would the wheat move? If we got into a competition between the United States and Canada, let us say, is it your analysis that much more wheat would be consumed because of that lower price?

I ask that question because it was represented to us elsewhere that the consumption of wheat is particularly inflexible, that it does not respond much to changes in price.

MR. ENGLISH: I personally must admit that I accept the study made by the Saskatchewan wheat pool on that subject a year or two ago. I do not know whether or not the commission is familiar with that study; perhaps it was presented to you in Regina.

THE CHAIRMAN: Our staff are familiar with it, and I am sure Dr. Stewart is familiar with it.

MR. ENGLISH: Certainly to some degree the effect of the lower price would be to rearrange the comparative advantages of the production of various products in western Canada. That would be the principal effect of the lowering of price. Our farmers, where they had any advantage at all in the production of other commodities, would change from wheat.

As I have indicated, or as the department indicated in their brief, there are certain sections of the province that are pre-eminently adapted for the production of hard spring





wheat, and the price would have to be extremely low, or the comparative prices of other products very high, before they would be discouraged.

As a matter of fact a changeover in a short period would be very difficult. There are other parts of the province, however -- that is in the black and grey wooded soils -- where there has been a big changeover from wheat to coarse grains in the last few years. Just speaking from memory, between 1931 and 1951 the percentage of the improved land in wheat dropped from as high as about 40 per cent to 10 to 15 per cent, in that twenty year period. If the price of wheat stayed down for a considerable time more land in those areas would be diverted to the production of other grains that serve as feed for livestock.

Perhaps you were going to ask me this a little later, but I will answer it now. We have suggested in the brief that assuming a 60 per cent increase in the demand for livestock products in the United States between 1954 and 1980, our production of beef and veal will increase by 70 per cent, and our production of hogs by 90 per cent. So we are assuming a reduction in the acreage sown to wheat, of 6.4 million acres in 1951 to 5.7 million in 1980. If we take an average yield for wheat we may expect that the production of wheat in Alberta will be reduced to about 90 million bushels a year.

MR. GRAUER: With the demand for wheat remaining unelastic, it seems a pity that the price



has to be depended upon to bring about this re-allocation, but that is more or less the system which has obtained in the past.

Do you feel that other means of getting marginal wheat farmers out of production will not work?

MR. ENGLISH: Well, they worked in 1941 to 1943 very well indeed.

MR. GRAUER: I may have misunderstood you, but I thought you said you were depending upon a lower world price to get the marginal wheat farmers out of production?

MR. ENGLISH: I indicated that a lower world price for wheat would increase the comparative advantage for the production of other crops. I did not suggest it as a means of relieving the long-time wheat supply programme.

MR. GRAUER: You would hope that other means would be found?

MR. ENGLISH: Yes.

THE CHAIRMAN: Thank you very much, then. Shall we move onto the next section?

MR. PATRICK: The next section, on the energy resources of Alberta, will be dealt with by Mr. Lang. We were going to skip the section dealing with crude oil, natural gas and natural gas reserves and bring up that matter after lunch, when Mr. McKinnon and Premier Manning and Mr. Govier will be here.

THE CHAIRMAN: Fine.

MR. PATRICK: So I am wondering if Mr.



Lang will just skip that in the summary.

MR. LANG: Mr. Chairman, before having this section read there is one error that has crept into this press release that I would like to have corrected. The error occurs on page 3, in the paragraph in the middle of the page. I would ask particularly that the press correct this error. The paragraph starts with the words "Presently developed reserves" and I would ask that the first two words, "presently developed" be struck out and that the words "an estimate of" be inserted in their place.

Then following the words "natural gas" I would ask you to insert these words: "that may be developed over a twenty-five year period" and in line 3 I would again ask you to cut out the first three words and to insert the following words: "Production over this period would be" and in line 4, immediately before "4.2 billion barrels" would you insert the words "would be". That sentence should now read:

"An estimate of reserves of crude oil and natural gas that may be developed over a twenty-five year period is given as 12 billion barrels and 60 trillion cubic feet respectively. The production over this period would be 7.8 billion barrels and 25 trillion cubic feet respectively, and the remaining developed reserves would be 4.2





billion barrels and 35 trillion cubic feet respectively."

I think it would help make the sentence a little clearer if you were to delete the words "a very" before "large expansion of Alberta's oil and natural gas industries" and insert the words "to the". That sentence would then read:

"It is believed that there will be continued incentive to undertake exploration and development and that this will lead to the large expansion of Alberta's oil and natural gas industries."

I would ask that these corrections be made. Furthermore, Mr. Chairman, I would ask that Dr. Berkowitz might read this section to us. He is a much better reader than I am.

MR. BERKOWITZ:

The section dealing with Alberta's energy resources focuses attention upon proven and probable reserves of energy source materials -- such as coal, petroleum, natural gas and oil sands -- and discusses the role of these materials and of hydroelectric power and nuclear energy in the provincial economy. The review covers a period of 20 to 30 years. The report stresses that while petroleum and natural gas will



unquestionably dominate energy production in Alberta, a very substantial recovery of Alberta's coal industry can be envisaged.

With respect to coal, the report places Alberta's presently known reserves at about 48,000 million tons of all types of coal. This estimate, which is equivalent to some 50 per cent of Canada's total coal reserves, is regarded as subject to upward revision since surveys in connection with petroleum and natural gas are revealing coal in areas not previously known to contain coal. Because of changes in consumer habits, and especially because of dieselization of the railways, coal output in Alberta has seriously fallen during the past few years, and the present situation facing the industry is extremely difficult. But the report strikes an optimistic note. While no substantial immediate relief is in sight, it is regarded as certain that future developments will cause a marked reversal of present trends. After 1960, coal output is expected to climb to some 6 to 8 million tons annually in order to help meet an increasing demand for electric power and industrial heat; and additional tonnages may be produced





because technological advances may make it attractive to use coal for home heating and eventually for the production of chemicals. It is pointed out that developments of this kind would become particularly interesting if power generation and the production of chemicals could be integrated as is being presently done in Texas. If the need arises, coal may even be used to manufacture synthetic liquid fuels, such as gasoline, and gas.

Between 100 and 300 billion barrels of oil are estimated to be contained in the Athabasca oil sands and this will afford additional reserves when it becomes economically feasible to extract oil from these deposits. Past thinking has assumed that the oil sands would be mined by open pit methods and that the associated oil would be recovered from the mined sand in a separation plant.

It is now accepted that only a small proportion of the formation as a whole would be amenable to this method. Because the oil content of the average grade of Athabasca oil sand is low, an 'in situ' method of recovery will be required even though



the amount of oil that could be extracted from mined sand is by no means insignificant. Two known areas in which conditions are favourable for mining contain about a billion barrels of oil each. The report stresses that the technology of mining oil sand and of recovering the oil is well understood. And there are reasons for believing that a marketable oil could be produced from the oil sands and delivered to market at a reasonable margin of profit if development were to be undertaken on a large scale. However, as long as Alberta crude oil production from oil wells continues to increase, there will be little incentive to develop the oil sands.

Turning to electrical power, the report states that Alberta's demand is anticipated to increase from some 1,620 million K.W.H. generated in 1955 to about 8,648 million K.W.H. in 1985. The difference in the cost of producing a K.W.H. from hydro, gas-fired steam plant, coal-fired steam plant or gas turbine plant is at present so small that there is no clear-cut indication of which type of generation would be chosen when consideration is given



to building new generating plant. But the report nevertheless foreshadows some very significant shifts in the present production pattern. In 1955, some 57 per cent of the total power generated is expected to be derived from hydro, 40 per cent from gas and only 3 per cent from coal. By 1985, on the other hand, 46 per cent is anticipated to be derived from hydro, 12 per cent from gas and 42 per cent from coal. Alberta's rivers are believed capable of adding as much as 2,850 million K.W. to the generating capacity of the province, but because much of this potential is far from major population centres and industry, only part of it is regarded as likely to be developed during the period under review.

Finally, some detailed consideration is given to nuclear energy. It is pointed out that while engineering developments necessary for large-scale industrial application of nuclear energy are already in progress, some 10 to 15 years will likely be required in order to gain experience by which this resource, and its future role, can be properly evaluated. It is expected that initial





use of nuclear reactors will be limited and largely confined to supplementation of existing water power resources, especially in regions lacking fossil fuels. And that means that nuclear energy is unlikely to become important in Alberta during the next 20 to 30 years. Development of nuclear reactors elsewhere may stimulate certain industrial development in the province. For example, world demand for uranium could lead to substantial mining and ore-refining activity around lake Athabasca. But energy production within Alberta is considered to continue to depend upon fossil fuels, and development of nuclear power elsewhere is not even considered to reduce significantly the demand for Alberta petroleum and natural gas.

THE CHAIRMAN: Thank you. We will skip oil and natural gas until after lunch, but there may be a few questions we can put in the meantime on coal.

On page 14 of the brief there are a few sentences in the middle of the page:

"The competitive position of coal in relation to other fuels would, for example, be greatly strengthened if a national energy policy were to be



formulated and implemented, or if government aid were to be extended to the industry in order to maintain it against the event of a national or international emergency."

What exactly have you in mind?

MR. LANG: Mr. Chairman, for the last number of years people who have been closely associated with the development and utilization of fossil fuels have felt that the broad picture of the relationship of the various fossil fuels in a competing market should be studied; and it is felt that if they are studied coal probably will again have some of the markets that are presently being taken by residual oils and perhaps some of the other fuels that are sold at what we coal people like to term unrealistic prices.

I realize that I am getting into a contentious statement there, but that is the way the coal people feel about it.

THE CHAIRMAN: That is really what I wanted to get at. Was it your thinking that coal should be subsidized or that the price of residual oil should be raised?

MR. LANG: I think probably it may have to be both; but if we take the development of energy within our country at the moment, we must look at the amount of money the government is spending in the development of nuclear energy, for instance. I think that must be considered in relation to the amount of money that should be spent in the development of other sources





of energy.

Does that answer your question?

THE CHAIRMAN: We expect to hear a fair amount about the development of nuclear energy as we proceed, and we are collecting the information that is available, such as it is, about it. In the last analysis nuclear energy will have to be competitive with other fuels that are available in the particular part of the country at the particular time.

I am still not wholly clear on your ideas about what should be done about the coal industry over the short term; whether it is a question of perhaps fairly substantial subsidies, or some restriction or control over the price of residual oils or other fuels.

MR. LANG: I think both factors will have to come into the picture on the short term basis; both the question of subventions and possibly that of trying to handle coal by trainload shipments, if that is necessary, also the question of higher prices for residual oils.

I was down at the mines ministers' meeting at Keltic Lodge in September, and there I found that the people of Nova Scotia were very much concerned about the prices of residual oils that were coming into the maritimes.

THE CHAIRMAN: We heard that when we were in the maritimes; but nobody had any suggestion as to what they could do about it, except put a tariff on oil.

MR. LANG: That might be a good plan.



THE CHAIRMAN: It might be easier for you to suggest that here than for people to suggest that in the maritimes. I don't know. That was the question; what do you do about it?

MR. LANG: There is another factor I think we have to bring into consideration here. Much as we hate to think there may be another international emergency or war condition, we have to consider that possibility. If you allow your coal industry to disintegrate, it is almost impossible then to build it up when the emergency arises.

THE CHAIRMAN: You mean to build it up quickly?

MR. LANG: To build it up quickly. I was in Calgary only last Saturday, and one of the coal operators was telling me that he is finding it almost impossible to get miners at this stage. He has an underground mine in which he has to have qualified miners. They have more orders than they can possibly fill; they are getting about one hundred inquiries each day with respect to coal, because of this cold snap, and they just can't fill those orders because they have not miners; and the reason they have not miners is that the miners have gone into other occupations, because of the rather serious situation that has faced our Alberta mines over the last few years.

THE CHAIRMAN: On page 16, and this is still dealing with coal, you suggest that one of the reasons the markets for coal have been reduced or lost



is that the operators have not had an effective coal sales and servicing program. Would you like to expand on that a little for us?

MR. LANG: In the research end they felt for quite a number of years that the operators were too individualistic in their outlook toward markets for coal. We suggested to them the idea that they should take or should have an over-all engineering service which would look into the problem of markets for coal and would look into the question of the preparation of coal that would fit those markets, in other words give an over-all engineering service both as to markets and as to marketing and preparation.

Very recently there has been a cooperative effort set up between our Alberta coal operators and the research council. It only started in July of this year. Dr. Grace and I were down to a meeting of that committee on Saturday, and it looks as if there may be some encouraging results coming out of it.

Mind you, my personal feeling -- and I must express it as a personal feeling -- is that this is something the coal industry should have done not this year but ten years ago, when there was a chance of maintaining and building up a market during good times, rather than trying to do it when the market is pretty well gone.

MR. GUSHUE: What sort of heating does the average householder put in his house in Alberta?

MR. LANG: That is quite variable. In the city of Edmonton I am sure it is 99.9 per cent





natural gas. In the rural areas people are burning propane, particularly for cooking purposes; at the moment it is certainly not economical to burn it for heating. A large proportion of the farm population use coal, and we are trying to encourage them, because of the development of rural electrification, to go to more automatic equipment, such as automatic stokers. A farmer who has rural electrification outlets available to him can have equipment that is almost as automatic and almost as convenient as gas. There are a certain number of farmers who have also gone to oil.

If you wish to go further afield, I think the same spread might apply in Vancouver, for instance, or in Winnipeg, or any other place. Where you can get natural gas at the prices we pay for it in Edmonton, we use natural gas. Where you want convenience and natural gas is not available, you may turn to oil; but you can get that same convenience with coal if you have the proper equipment and if that equipment is properly installed.

MR. GUSHUE: At comparable prices?

MR. LANG: With coal at cheaper prices than oil, without question. Coal always has two strikes against it, because people say coal is dirty and we have to admit that it is.

THE CHAIRMAN: So is oil.

MR. LANG: Very well. On the other hand we have to admit that coal can be made cleaner than a lot of us know coal as we have used it.

THE CHAIRMAN: Then at the bottom of page



16 and the top of page 17 you refer to plans for the establishment of an iron and steel industry in Alberta. Would you like to tell us a little about that, and just how well developed the plans may be?

MR. LANG: This is something that has come up quite frequently over the last number of years, and I think it is just a natural thing. If you have coal of suitable quality for the production of steel and you are using a large amount of steel within the province, therefore you are looking to the possibility of developing a steel industry.

The handicap has been and may continue to be, where are you going to get your iron ore? There have been numerous suggestions as to the possibility of using small deposits of ore. There has been the possibility of bringing ore from Steep Rock west and taking the coal east. There have been many suggestions. We have heard that there may be certain iron deposits within the province. None of these have been proven to the extent of an iron deposit which would be suitable. I think I am correct in making that statement. In any event, it is something in which a great deal of interest has been shown and quite a number of independent investigations have been made along these lines.

THE CHAIRMAN: I notice that you ended that section of the brief with a quotation from the coal board's annual report, and I suppose it is a good principle to end up anything on an optimistic note, but I wondered whether you felt that it was





particularly optimistic.

MR. LANG: Well, frankly I thought it was a very good note to end on.

THE CHAIRMAN: That is a very good suggestion.

MR. GRAUER: In the summary, reference is made to power generation and the production of chemicals, to integrate that as is being done in Texas. I wonder if we could hear some more about what they are doing in Texas?

MR. LANG: The Aluminum Company of America are interested in the production of aluminum, and this is being done in Texas at Midland, I think the name of the town is, and it is right in the middle of a gas field; I could not help but bring in that comment.

Going back one step, Mr. Parry, engineer for the United States Bureau of Mines at Denver, has developed a process of drying and carbonization, which is also termed as a fluidizing process.

In this process the coal is first dried to remove the moisture, because it is a lignite coal with high moisture content. The coal then passes into a very similar unit, which is a carbonizing unit. The char that results from the carbonization of the coal passes into the generators for generating the electricity.

This has certain advantages. First, it has a higher heating value than the raw lignite. Second, it is more uniform than the raw lignite; and



third, because of the higher heating value and the more uniform quality of the material, they are able to maintain their loads at a better level than with the raw lignite, even if raw lignite can be burned in power generation without any difficulty.

But the idea of combining this carbonizing process with power generation had another angle. In the carbonization of the coal you get off a certain amount of tars and light oils, and it was the hope of the Aluminum Company of America and also of the developers of this process that these tars could be used for the production of chemicals and for electro-carbon in the process.

The price that was used in estimating the value of the tar in these developments I think was probably a little unrealistic, and I think there is some indication at the moment that the tars are a little more difficult to work up than was originally anticipated. However, I think it will not be too many years hence until that process will be worked out on a commercial scale, and all the bugs will be ironed out. At the present time it is just in the development stage.

May I say that the research council of Alberta are doing work on this same carbonization scheme, or at least I should not say exactly the same but a similar principle.

MR. GRAUER: It is not dependent upon the lignite coal, I take it; it can be used with other types of coal?

MR. LANG: The original work done by Mr.



Parry carried it from the lignite through the sub-bituminous coals and up to the non-coking coals. It is a little bit more difficult to work in the coking coals, although the Pittsburgh Consolidated Coal Company in Pittsburgh, one of the largest coal development companies in America, are also working on this problem from the point of view of the coking bituminous coals of Pennsylvania.

MR. GRAUER: On page 4 of the summary you point this out:

"The difference in the cost of producing a K.W.H. from hydro, gas-fired steam plant, coal-fired steam plant or gas turbine plant is at present so small that there is no clear-cut indication of which type of generation would be chosen when consideration is given to building new generating plant."

MR. LANG: I would ask that Mr. McGregor answer that question.

MR. GRAUER: I am not asking a question; I am drawing a conclusion. That is a statement which indicates to me that Alberta is very well off when it comes to fuels for producing electricity, or means of producing electricity; and I take it this is because you are sitting on top of the gas fields and on top of coal which can be mined by open pit mining, and that sort of thing. That would be a reasonable conclusion, would it not; that Alberta is very well off?





MR. LANG: In amplifying that I would say that Alberta is one of the places in the world where you have reserves of all the various sources of energy material. I do not know of any place where you have such an abundance of reserves within such a small area generally.

MR. GRAUER: That is what I always understood, and it made me curious when I heard the policy statement this morning that Mr. Simpson gave. On page 2 there is what seems to be a rather elaborate recommendation for a national committee on energy.

Just what are the fears of Alberta as to the outlook for energy? What are the problems that you see that make you recommend a national body representing all the provinces, which usually is a pretty unwieldy body?

MR. LANG: I will take a crack at this, and probably Dr. Grace would like to supplement what I say.

We feel this way. We are not looking just at Alberta; we are looking at Canada as a whole, and we feel that if we look at Canada as a whole it must be a national energy group that will consider how best these reserves should be used. These reserves are not going to be used within the province of Alberta, or at least not all used within the province of Alberta. We have our coal going as far east as Montreal; we have it going to the west coast. We have oil at the present time going to the west coast and also to Sarnia and eventually on through



from there. We see a great deal in the press from time to time with respect to where the natural gas is going. I don't know about the water; all I know is that it does happen to go into Saskatchewan and on into the United States.

So we as a group feel that we definitely should have an over-all energy committee at a technical level which will be able to evaluate all the various energy source materials and put them in their true perspective.

This has been a hobbyhorse of mine for the last number of years, and I feel it is something that is very essential. I would like Dr. Grace to amplify this, if he so wishes.

MR. GRACE: Mr. Gordon, I do not think there is any question of concern as far as Alberta is concerned. It is just the simple fact that here we are sitting on one of the most concentrated reservoirs of energy that could be found anywhere. As we look ahead we say, are we going to be entirely laissez faire or are we going to provide private individuals and governments with a basis of sound scientific information from which they can proceed a little more intelligently than perhaps we have proceeded in the past?

May I take this opportunity of going back to your question of a short time ago in respect to the coal situation here. As a scientist I would hate to try offhand to face that problem of a national appreciation of the energy picture, but as far as we





are concerned today and tomorrow it is absolutely essential before we can even look at the answer.

Look at the fossil fuels. We have great reserves, and eventually they are going to redound to our benefit, indirectly and directly. But we are thinking of the greatest good to the greatest number, and it is very clear that our industrial development is going to depend on how we deal with our energy resources.

I think perhaps my words are a little incoherent, but I personally feel that we have a great opportunity. The Paley report contains one or two very striking examples, and it has been quoted and used on numerous occasions. I do feel that our coal will fall into line. It may be a few years before the true picture comes out, but we know all our fossil fuels.

There is another question which comes into the picture. Frankly, I think some of us are concerned about insuring adequate water supplies for industrial development in the days ahead, which may be a limiting factor. In other words, the energy is the key, and once you look at it at the national level from the scientific point of view, I think everyone concerned will be benefited by it.

THE CHAIRMAN: Thank you very much.

MR. GRAUER: There are no particular problems, then, in development so far. This is more or less looking ahead, and you are dealing with the fossil fuels chiefly, I take it.

MR. LANG: There are some problems. A



power plant is being developed at Wabana, about 50 miles from here. That power plant is being developed right on top of a large coal body, but for the first few years at least it is burning natural gas. So from the coal point of view we do have our problems.

MR. GRAUER: With respect to the industrial development which you foresee, which you relate to energy, the first sentence -- and I am still referring to Exhibit 46 -- states:

"It is axiomatic that industrial expansion and the effective development of natural resources depend on the availability of ample sources of low cost energy --"

I am just wondering if you are over-stressing this question of energy. Of course I appreciate that this is the energy section of the submission, but you do have the industrialization of the Atlantic seaboard and the north central states and the southern states, chiefly on account of low labour costs. In other words there are many factors other than energy.

I am a little puzzled now. You have the cheap energy here; there is no doubt about that. With this national energy policy, I take it that it is just not industrial development in Alberta you are concerned with, because you talk about the decentralization of industry. I realize that this is going over into another section, but I assume you are willing to have



this decentralization in other places perhaps except Ontario and Quebec?

MR. LANG: I would not go so far as to say that, but we would like to have industry all over the country. I think not only is it good for the country as a whole, but it is also good in times of national emergency that your industry should be decentralized.

MR. GRAUER: I do not want to press the point on the decentralization of industry, which comes up later, but of course low cost power is particularly attractive to certain industries. With the great majority of them it is not a very important part of their cost of production, and I am just a little puzzled now as to how you are going to get that type of industry into Alberta and still be generous about giving low cost power, which you control, to other parts of Canada too.

MR. GRACE: Would you just redefine your question, sir?

MR. GRAUER: There are certain industries which you would expect to attract to any part of the country because of low cost energy, and I take it that under your national energy policy your intention is to share your energy with other parts of Canada?

MR. GRACE: Certainly.

MR. GRAUER: So I am just a little puzzled at the moment as to how you fit those two things together, the one wanting to stimulate industry here, and at the same time distribute one of your chief





advantages in getting industry elsewhere.

MR. GRACE: I think if it is appreciated what the energy reserve really is, that mere fact can be stated in clear, sound, scientific language and I will let the chips fall where they may. Obviously when you come down the line, what I do with the energy will depend on what I make; and if I can make something of value that will stand the freight, I will make it here, and Alberta will be benefited tremendously.

On the other hand, obviously Alberta is a part of Canada, and I think as Albertans we hope our energy reserves will meet the national need in the most effective way. That is why, with the change in technology, on top of the magnitude of the reserve, you have a picture which is continually changing.

I do not know whether I have answered your question; but the low cost energy will be higher in cost, obviously, in Ontario and Quebec, than it is here; and then economics and good judgment will dominate.

MR. GRAUER: I think the key to the point is probably your phrase "magnitude of the reserve" because particularly in some lines you have such tremendous reserves of energy-producing fuel that you can share it and still have all you want yourself.

MR. GRACE: That is right.

MR. LANG: I think Dr. Berkowitz would like to say something now.

MR. BERKOWITZ: I think it has been pretty



well summed up now. I believe this is one case where you can have your cake and eat it. I believe there is enough material here to send some out and yet keep enough here for whatever industry may come here.

MR. LANG: May I just add one other point. We anticipate that when we have large exports of natural gas and large exports of oil, the tendency will be for the prices of both gas and oil to rise. But by that time we will have the coal reserves which will probably be able to enter into the picture to a greater extent than they can at the moment, with the -- I do not like this word but I am going to use it -- unrealistic prices at which the coal people feel some of the other fuels are being sold.

MR. GRAUER: We are very glad to have your natural gas in the greater Vancouver area, I can assure you.

THE CHAIRMAN: Then shall we move on to the next section?

MR. PATRICK: Then omitting the oil section for the moment, we will move on to the section dealing with mineral reserves other than fuel, and Mr. Somerville, deputy minister of mines and minerals, and Mr. Jackman, statistician, will present it.

MR. SOMERVILLE: Mr. Chairman and members of the commission, this section of the submission deals with mineral resources other than fuel.

Included in these minerals are





those used in the construction industry and other non-metallics and metallics which are being developed or may be developed in the foreseeable future. The minerals used in the construction industry including limestone, shale, clay, sand and gravel have been utilized during the entire period of development of the province and occur in sufficient quantity to insure a continuous supply.

The large deposit of common salt underlying east-central Alberta was first commercially developed in 1938 and production is continued in sufficient volume to meet the province's domestic and agricultural requirements. As industry markets are provided, a corresponding increase in output may be anticipated. Other minerals which are known to occur in the province in commercial quantity include silica sand, iron and gypsum. Development of these resources will take place when economic conditions make their exploitation commercially feasible.

THE CHAIRMAN: The only question I personally want to ask about is in reference to the iron ore deposits. I would like to know how extensive they are and what grade they are. We were speaking a moment ago



about the possibility of a steel industry. Could you tell us something about the iron ore deposits?

MR. SOMERVILLE: About two years ago an exploration was commenced in regard to a deposit occurring in the Hines Creek area, that is in the northwesterly portion of the province. After investigations were carried on for about one year it was found that the nature of the ore was not suitable at this time for commercial production.

Subsequent to that time operations have been conducted to explore a deposit occurring in the southern foothills; and while it seems there may be one or two million tons of fair quality ore, it is hoped that the body may, through core test drilling, be increased, so that in time a body of ore may be developed suitable for production.

THE CHAIRMAN: Does your steel industry, then, depend upon that foothills find turning out to be more extensive?

MR. SOMERVILLE: Either that or further development of the ore body up north.

THE CHAIRMAN: What do you think are the chances for a steel industry?

MR. JACKMAN: The deposit up north is comparable to the ones being worked in Europe. It contains about 48 per cent iron ore, but it is so far from existing means of communication that it would not be economic to bring it out at the present time. However, I believe there are some tailings from the copper plant at Fort Saskatchewan here, and the



Sherritt Gordon plant, and some from Trail, British Columbia, that could be used.

THE CHAIRMAN: That is what I am really trying to get at. The suggestion was made that there might be a steel industry here some day.

MR. PATRICK: There is now.

THE CHAIRMAN: Then the steel industry, if it is here now, gets its ore from where?

MR. PATRICK: It uses scrap.

MR. GRAUER: I think you might have some trouble with Premier Bennett if you have your eye on those tailings at Trail.

Do you feel that the mineral resources of Alberta have been fairly thoroughly explored? What is the stage of exploration here?

MR. JACKMAN: They have been explored in the sedimentary basin, but not in the pre-Cambrian shield. In northwestern Alberta there is about ten thousand miles which has been very inadequately prospected, and which may have deposits of uranium, copper, zinc and lead. The rest of the province has been pretty well covered. I believe there have been some showings of zinc and lead ores in the back reaches of the mountains, but there is very little on the plain that could be considered to be of economic consequence, except of course the salt and other sedimentary deposits of that type.

MR. GUSHUE: Your non-metallics picture seems to be quite a rosy one?

MR. JACKMAN: Yes, it is.





THE CHAIRMAN: Then shall we move on to forestry before lunch?

MR. PATRICK: I understand the minister will not be here until after lunch, so perhaps we might adjourn until then.

THE CHAIRMAN: Very well; we might adjourn now until 1:30.

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At 11:50 a.m. the commission adjourned.

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At 1:30 p.m. the commission resumed.

THE CHAIRMAN: Well, gentlemen, shall we come to order? Mr. Patrick, you would like us to start with the forestry section?

MR. PATRICK: Yes, I think we will carry on with that. In that connection we have Hon. Mr. Wilmore, Mr. Kenway, Mr. Jensen and Mr. Huestis.

MR. KENWAY:

With the assistance of aerial surveys the forest inventory of the province will be completed by March 31, 1956. That portion below the 57th parallel was completed in 1953 and from a study of the inventory we are now in a position to determine the amount of timber that may be cut on a sustained yield basis. While spruce provides 85 per cent of our forest production, an examination of the more accessible areas covered by the inventory indicates that the future cutting of spruce will have to be studied to ensure a supply for the future.

The province has large resources of pine timber that are not now being utilized because of the lack of markets for pine products. It is hoped that markets will be found to allow a continuation of our over-all timber





production and to take care of an expected increase in the future.

The inventory indicates that poplar makes up 45 per cent of our timber stands. These stands are now coming into production with the construction of plywood plants. It is anticipated that this production will increase.

Increased expenditures on forest protection during the past few years will help to ensure the supply of timber for available markets.

The establishment of a long term land use policy is desirable.

MR. LUSSIER: If I understand correctly, you have an area of over 80 thousand square miles, according to the brief?

MR. KENWOOD: The figures in the inventory were based on about 70 thousand square miles below the 57th parallel.

MR. LUSSIER: And which is all timber land, with no waste. You have no waste area in that?

MR. KENWOOD: In that I think if you will look at table 4 it is outlined as to the productive and non-productive areas; swamp land, water and so on.

MR. LUSSIER: But it is all accessible?

MR. KENWOOD: Yes.

MR. LUSSIER: You say you are going to exploit your forests on a sustained yield basis?



MR. KENWOOD: Yes.

MR. LUSSIER: How do you manage your forests to get that sustained yield basis? Do you manage your forests, for instance, by large areas or just by small areas?

MR. KENWOOD: I think I should turn that question over to Mr. Huestis, our director of lands.

MR. HUESTIS: I did not quite follow your question.

MR. LUSSIER: I would like to know the cutting conditions you have here.

MR. HUESTIS: The timber is disposed of by licence; that is, the big majority of it, in small areas. There is only one large concession out at the present time, and that is to a new pulp company, the first pulp company in the country.

MR. LUSSIER: Have you much vacant land at the moment?

MR. HUESTIS: There is a good deal of vacant land.

MR. LUSSIER: Which could be disposed of?

MR. HUESTIS: Yes.

MR. LUSSIER: In any concessions you make is it for one year or for many years to come?

MR. HUESTIS: It depends on the amount of timber purchased by the company. If the company is cutting say 5 million feet a year and if all they have is 20 million feet, that is four years of cutting, with



a possible extra area for contingencies.

MR. LUSSIER: And that pulp and paper company which is being established?

MR. HUESTIS: They have a two thousand year agreement that is renewable.

MR. LUSSIER: And do they pay stumpage dues?

MR. HUESTIS: Yes; ground rent and stumpage dues, and they pay something for fire guarding charges as well.

MR. LUSSIER: They are protecting the forest?

MR. HUESTIS: Yes. They pay the same as an ordinary operator. The ground rental is less because of the larger area.

MR. LUSSIER: Do they practise any silviculture?

MR. HUESTIS: The pulp company?

MR. LUSSIER: Yes; or any company?

MR. HUESTIS: They have not got started yet, but they intend to. The agreement says they must manage it on a sustained yield basis.

MR. LUSSIER: But so far they have not started it?

MR. HUESTIS: They have not started cutting yet.

MR. LUSSIER: But when they start cutting?

MR. HUESTIS: They will be practising silviculture.

MR. LUSSIER: And those who are already





cutting, the smaller operators; are they restricted?

MR. HUESTIS: Yes. We dispose of timber in this way. We take a block and only dispose of roughly 40 per cent of it, and that is managed on the basis of a diameter limit. In other words we cruise the timber and cut 40 per cent and leave the other 60 per cent to the future.

MR. LUSSIER: What about the fire protection? Have you a service for that?

MR. HUESTIS: Yes, we have a protection service made up of rangers, lookout men and hired help during the summer months, during the fire hazzard months.

MR. LUSSIER: Have you many fires every year?

MR. HUESTIS: Too many.

MR. LUSSIER: That is the same thing in Quebec. Have you any idea how you could improve the system of protection?

MR. HUESTIS: Yes, we can improve it by extending our fire protection system. We have been improving it quite considerably in the last few years. Our expenditure is double what it was five years ago on protection alone.

MR. LUSSIER: Do you think the dominion government could help you in that way?

MR. HUESTIS: Yes, we had hoped so under the Canada Forestry Act. We think they could help us very materially.

MR. LUSSIER: In what way?



MR. HUESTIS: Under the Canada Forestry Act as it was originally set up, the intention was to donate certain money from the federal government to the provinces to help in fire protection. There was not sufficient money when they started, so they donated certain funds to certain provinces for inventory work and for the tree planting program.

MR. LUSSIER: Have you any specific recommendations?

MR. HUESTIS: You mean any recommendation that has gone to Ottawa?

MR. LUSSIER: Yes?

MR. HUESTIS: Yes; a resolution was passed in our legislature last year and forwarded to Ottawa, asking that some assistance be given.

MR. LUSSIER: You are asking for assistance, but what kind of assistance; only money?

MR. HUESTIS: Yes; financial.

MR. LUSSIER: But you do not provide for any program under which you would spend that money?

MR. HUESTIS: Oh, yes, we do.

MR. LUSSIER: How would you spend that money if you had it?

MR. HUESTIS: We would have to have more men; more lookout towers, more equipment and more machinery.

MR. LUSSIER: Have you any tree diseases?

MR. HUESTIS: We are fairly free of disease. We have an excellent service here supplied by the dominion government, who have men in all parts of





the province keeping pretty close tab. Disease is not prevalent.

MR. LUSSIER: You do not have any budworms or that kind of thing?

MR. HUESTIS: We have the larch sawfly, which came in here some thirty years ago and destroyed our larch. It is not a species which gives us a great deal of production, but it is coming back again and they will probably clean it up again.

MR. LUSSIER: Thank you very much.

MR. GUSHUE: You have no operating pulp and paper mills in the province at the present time? There is one under consideration?

MR. HUESTIS: Yes, and we have three others who would like to come in.

MR. GUSHUE: What type of material would be used to feed these mills?

MR. HUESTIS: They are going to use white spruce, black spruce, pine, balsam, fir, and some poplar.

MR. LUSSIER: What kind of pine have you here? Have you jackpine or lodgepole pine?

MR. HUESTIS: We have both in this province. The lodgepole pine extends to the middle of the province, and from there north it is jackpine.

MR. LUSSIER: And do you think you can use the lodgepole pine for pulp, too?

MR. HUESTIS: Yes; they have assured us they can.

MR. GRAUER: Is there any study of your



potential for pulp expansion?

MR. HUESTIS: We have given that matter some study, and we feel that possibly the future expansion in regard to pulp will be in those areas which are now being operated for sawlog operations; and we have vast areas in the north which have not been touched, which might be rather more suitable for pulp than for sawlog production.

MR. GRAUER: You have not got so far in your inventory as to be able to estimate the capacity you might have?

MR. HUESTIS: No, but by the end of March we will have a complete coverage and will know exactly what we have.

THE CHAIRMAN: On the last page of the section of the brief dealing with forestry, page 13, you have outlined the objectives of the forestry policy, with which I must say I was very much impressed. Are measures in contemplation which would lead to the achievement of these various objectives?

MR. HUESTIS: Some of them are, sir; but you find us in the position of transition, with our inventory not yet complete. We are in the planning stage, let us say, and we do not know exactly where we are going. We have some definite ideas, but until the inventory is complete and we get the whole picture, we will not know exactly where we are.

MR. GUSHUE: You are optimistic about your white spruce?

MR. HUESTIS: Yes, but we have not a



complete picture yet, and we do not like to get too optimistic until we have it. By the end of March we will have it and will know what is the position. Transportation facilities seem to be spreading north, which may open up large areas which we consider inaccessible at the present time.

MR. GUSHUE: What about your statement on page 7:

"It is perfectly obvious that white spruce is rapidly fading from the picture."

MR. HUESTIS: I think that would be a little extreme.

THE CHAIRMAN: May we ask that when the inventory is completed by the end of March, we may have a look at it? Members of our staff will probably be out here in due time.

MR. HUESTIS: That will be quite in order, sir.

THE CHAIRMAN: Thank you very much.

MR. PATRICK: This morning when we dealt with the energy resources of Alberta I asked that we let part 4, dealing with crude oil, natural gas and natural gas liquids, stand until this afternoon.

We have with us this afternoon Premier Manning, who is also Minister of Mines and Minerals; Mr. McKinnon, chairman of the petroleum and natural gas conservation board; Mr. Govier, our chemical engineer, and others. I wonder if I could ask Mr. Cooper, the





statistician, to read the summary dealing with that chapter.

MR. COOPER: Mr. Chairman, I shall read the summary as it was amended this morning.

An estimate of reserves of crude oil and natural gas that may be developed over a 25-year period is given as 12 billion barrels and 60 trillion cubic feet respectively. The production over this period would be 7.8 billion barrels and 25 trillion cubic feet respectively, and the remaining developed reserves would be 4.2 billion barrels and 35 trillion cubic feet respectively. It is believed that there will be continued incentive to undertake exploration and development and that this will lead to the large expansion of Alberta's oil and natural gas industries. The report estimates that in 1980, oil production of natural gas is anticipated to be 14 times greater than 1955, and the production of natural gas liquids to be about 15 times greater than in 1955. It is believed that this development will require considerable expenditure for exploration, the drilling of some 40,000 to 50,000 additional wells, and the construction of additional pipeline facilities and new refinery capacity.



By 1980, the report continues, the Alberta oil and gas industry will be likely to have a developed energy reserve of about 63,000 trillion B.T.U.'s. Some 80 per cent of this annual production are expected to be exported from Alberta.

THE CHAIRMAN: I notice on page 5 that from 1947 to date, 70 per cent of the wells drilled were successful, whereas more recently only 30 per cent were successful. Would you care to comment on that?

MR. COOPER: Which table is that?

THE CHAIRMAN: That is a statement on page 5. What I am interested in learning is whether they are the same kind of wells, or whether this change from 70 per cent success to 30 per cent success has any implications that you are worried about?

MR. COOPER: Mr. Chairman, the 70 per cent of total wells drilled are those in which we were successful in finding oil or gas in commercial quantities. The other percentage refers to wildcat wells only. We have taken out the strictly wildcat wells drilled, and their success on the average was roughly 30 per cent, or considerably less.

THE CHAIRMAN: We are talking about apples and bananas, and trying to compare the two, then?

MR. COOPER: Yes.

THE CHAIRMAN: On page 12, in a reference





to markets, you refer to the fact that you expect that by 1960 Saskatchewan and Manitoba will be self sufficient in oil. After that date do you expect any surplus production in Saskatchewan and Manitoba?

MR. COOPER: Mr. Chairman, this assumption which is developed here is tied in to their present requirements for these products, and then related to their apparent growth or potential growth that has occurred in the last few years, with some estimate for the future. Then, having saturated their particular future market within their own boundaries, they would enter other marketing areas.

THE CHAIRMAN: The point I am getting at is whether you have taken into account in your estimates here of what your own markets are going to be after 1960 -- I am sure you have -- the fact that after that date you will perhaps have to compete with surplus production in Saskatchewan and Manitoba?

MR. COOPER: Yes, we have.

THE CHAIRMAN: I thought you had, but I wanted to clear it up as we went along.

I do not know whether I should address this question to you, Mr. Patrick, or to Mr. Manning. We have heard a certain amount of talk to the effect that the oil industry here is tending to become consolidated or concentrated in the hands of the larger companies, and by inference that means mainly the larger United States companies.

I think we would like to know, first of all, if that is the fact; and second, if it is the fact,



whether it is something about which you have any views, really, one way or the other.

MR. MANNING: Mr. Chairman, to some extent that trend is evident. I think it would be correct to say that it is perhaps a natural trend as the development of oil resources progresses to the stage that it has now reached, and the stages into which it will be entering further in the future.

For one thing, the exploration and development costs become substantially higher as they get into the more difficult areas to develop, and that fact alone makes it extremely difficult for small companies with limited capital to compete in that type of development with larger companies with substantially greater resources at their disposal.

I think the trend definitely is there, although frankly I believe it is exaggerated in many of the references that are made to it. But the trend is there.

THE CHAIRMAN: As you say, the capital required for exploration and development in this industry is very large, and is beyond the resources of any but the larger companies, in all probability.

Your policy, as I understand it, is to link development and exploration fairly closely together; in other words, having done an exploratory job, you require people to develop the fields that have been found.

Would you expect that this is a policy that you would continue for some time, or do



you think that a stage might be reached where the reserves that were not only explored but the fields that had been developed would represent such a large quantity of oil that you could afford to defer the development expenditures on any new fields that might be discovered?

MR. MANNING: The market situation will undoubtedly have a very definite bearing on any alterations in policy that may be made later on in that field. As you know, for quite a number of years now we have had to superimpose a market quota over and above the quotas which wells ordinarily would be permitted to produce.

That naturally gives rise to the argument that if by producing the established wells at a little higher rate, still within sound engineering practices, they could meet more than the available market, is it sound to insist on further actual development?

It has been our view, which is embodied in our policy, that we have no reason to change our belief that in the foreseeable future, anyway, it is not desirable to have companies tying up for a long time into the future large areas of potential oil development land unless they are actually being developed. I think if that were permitted it would certainly encourage the very trend that we referred to a moment ago, because only the large company with large capital reserves could afford to tie up this land, and do its exploratory work on it but not go on





to the stage where there would be recovery from the actual development.

Certain modifications undoubtedly will be made. For example, in the last year or two there has been an enlargement of the spacing needs. In effect that tends to reduce the number of wells a company is required to drill as a development program within the area in which they have carried out exploration. That has not been dictated purely by these economic factors, but also by the different structures in which the exploration now is being carried on.

To summarize it, in principle we do not believe in permitting companies to tie up land unless they are prepared and able to proceed with development; but we do feel the policy has to be sufficiently flexible to take care of those factors that inevitably arise in that type of development.

THE CHAIRMAN: In a rough way could you tell us the proportion of costs, the division as between the exploration side and the development side? What have been the averages to date? Are these figures available, the totals spent on exploration, and the totals spent on development?

MR. MANNING: The total figure, as near as I know it, in the last ten years would be about a billion and a half dollars, but that is for both exploration and development. Perhaps Mr. Somerville could break that down.

MR. SOMERVILLE: No, I have not those



figures. They might be obtained from the Canadian Petroleum Association, with whom I believe the commission were going to have a discussion.

THE CHAIRMAN: Yes, they are going to appear before us in Calgary, and this is one of the breakdowns in which I would be interested. We will get it then.

MR. MANNING: That figure of one and a half billion dollars does not include any of the processing and distribution costs. That is purely exploration and development.

THE CHAIRMAN: Mr. Manning, this morning Mr. Simpson in presenting an outline of the policies which I take it you favour, recommended the creation of a national energy committee composed of scientists and technicians, which would study the whole energy picture in Canada and make its recommendations to the Prime Minister and also to the heads of all the provincial governments.

In making that recommendation for a Canadian energy committee, would you care to give us the benefit of your own views about what Canadian policy should be in the energy field? It is a vitally important part of the terms of reference of this commission, and we would be very grateful if you would care to give us your views on that question.

MR. MANNING: I think I would have to say that it is perhaps because we feel there is a considerable measure of uncertainty as to just what are the wisest policies with respect to the over-all





utilization of energy resources in the country, that leads us to recommend that this type of body be set up, to be in a position to make constructive recommendations, which we feel there is no one national body today sufficiently informed on the over-all energy picture to be able to make sound recommendations along that line.

We have in this province, of course, an abundant supply of the three great fuels, oil, gas and coal. Now there is coming into the international as well as the national picture the possibilities of nuclear energy, which may definitely revolutionize the whole concept of energy resources and their uses.

It seems to us that because energy resources are so vitally related to the industrial and economic development of this nation, the subject is important enough that it should be co-ordinated on a national scale.

Frankly we feel that it is too far reaching in scope for us to attempt anything like this provincially for, if we did attempt it, it would not accomplish the purpose that could be accomplished if it were reviewed from a national and even an international level.

Our thought was that such a survey is overdue, and that it definitely should be made so there would be a co-ordinated body of material which qualified men could analyze, and in the light of those facts recommend not only to the national government but to the provincial governments concerned, improvements



or modifications in policies that had a bearing on energy resource development.

Perhaps that is not very specific, but that is the need as we see it.

THE CHAIRMAN: I am grateful for that explanation. One of my reasons for asking the question was that either in this brief statement which was made by Mr. Simpson or in the brief itself is a reference to the petro-chemical industry, and references to the desirability of some decentralization of industry in this country.

I rather took the references together to imply that perhaps you would like to see these petro-chemical industries established, as a good many of them are already, here in this province at the source of the raw material, rather than see the gas exported to the United States or perhaps to other parts of Canada and have the petro-chemical industries set up there.

Is that a fair line of thinking for me to take, or should I be corrected?

MR. MANNING: I would say that is a very correct summary of our thinking on that point. The thought there, however, goes a little further. We feel that we are now on the threshold of a very large development of our gas resources, as the result of a possible export market for gas. The great proportion of that gas, of course, of necessity must be processed here before it is exported, because of the chemical content of the gas. The by-products



extracted in that processing lend themselves to various branches of the petro-chemical industry.

We anticipate that finding a market for these by-products is going to be one of the major problems in the whole gas development and marketing program; and it may well be that the decentralization of chemical industries that can utilize these by-products to this area of Canada, where they are available, would be more feasible than attempting to export the gas and separate it, and use the by-products somewhere else. There is a very definite advantage to the province, of course, in that the greater industrialization we have here, the greater diversification we have of our economy; and industry is something we need. Being a long way inland, the types of industry that are feasible here are limited. The petro-chemical industry is one that does appear to be quite feasible to an inland part of the country.

All of this gets back to the development of our energy resources, because unless we have a satisfactory visible market for the by-products, we are not going to get the incentive for the development that is tied in with the whole program of developing these resources.

THE CHAIRMAN: On that point about the markets for the by-products, I have heard some people in the chemical or petro-chemical industry say that they are not able to sell their by-products in the United States because of high United States tariffs, and that they are having difficulty in selling them





in Canada, because of low Canadian tariffs, so they are just caught in the middle either way. Presumably they think it would level off if the Americans would eliminate their tariffs, but I gather they do not think there is any immediate likelihood of that happening. So they have said on occasion that if they cannot ship their by-products into the United States, they think the Canadian market should be reserved for them.

I do not want to ask you the direct question as to whether or not you agree with that approach, but on the other hand it is fairly vital to the future of the petro-chemical industry. As you said yourself, the industry will depend on being able to find more markets for the by-products it produces. Is that the key to it?

MR. MANNING: Well, it is certainly one of the major factors. As the development reaches large proportions and the volume of these by-products builds up, they certainly will become a very difficult problem.

Another thing that should be mentioned in conjunction with this, because it bears directly upon it, is that the cost of supplying these products to the Canadian market is a factor that is going to limit their use in Canada, even though Canada in the east, for example, may be importing some of these things. Our freight costs are such that we could probably supply only some of these markets economically.

That again leads us to feel that if that situation can be altered by establishing here lines of



industry that can utilize these by-products, the products of those industries will be perhaps more readily absorbed into the Canadian and even the United States economy than some of these by-products themselves, particularly when we have to consider the transportation costs in supplying the rest of Canada.

THE CHAIRMAN: I am beginning to think the people who made the population estimates for you were much too conservative, if you are going to get all these industries in here.

MR. GRAUER: As far as the terms of reference to the commission are concerned, it is quite apparent, then, that for the next 25 years Alberta has ample resources in gas and petroleum products for its own requirements and for a very considerable margin of export. That would be correct?

MR. MANNING: That would be very conservative, sir.

THE CHAIRMAN: The staff of the commission, as you know, are making studies of oil and gas and all the other energy sources that are available in this country, and they will be in touch with your officials, as they have been already. Perhaps if we might leave it to them to follow up from here on, I think you have set us straight on a number of matters which were troubling us, and we might leave it at that; except that I would like to know your views, sir, on the questions of taxation that were dealt with by Mr. Simpson in his presentation.





It seemed to me that there were some questions relating to the taxation of oil companies that were different in Canada and the United States, and which apparently put the Canadian companies at a disadvantage. But basically it seemed to me -- and this is a question on which I would like to be corrected if I am wrong -- that the large American oil company with very substantial profits can spend a pretty substantial sum on exploration and development in the United States and Canada, or in any other part of the world, and then charge those expenditures off against their profits, for tax purposes. But the first essential is that the company must have very substantial profits. If their profits are modest, quite obviously it is going to be limited as to the amount the company can spend on exploration and development and still have a balance of profit left to charge it against. If it is a small public company it has to keep in mind the fact that it has to earn some money to show something in the way of profit in order to satisfy the shareholders and everybody else who are interested in the credit of the company.

So in my thinking about this tax angle of the problem I do not quite see how, even if all these suggestions were implemented, the small Canadian company could ever expect to be on all fours with its very large competitor in the United States.

MR. MANNING: I think it would be correct to say, for the reasons you have mentioned, that the larger the operations of the company, the greater field



in which they can make these further investigations than is possible with a small company, even under more favourable tax regulations and laws.

The thing that disturbs us, however, is that the Canadian companies operate under a tax structure with a more restricted base in spreading their costs, their write-offs for depreciation allowances and so on, than is the case with the American companies with the wider base on which they are permitted to offset a loss in one place as against a gain in another.

It is not our thought that the Canadian company should be put in a position of advantage over other companies, but we do feel that the more restricted base of the tax structure in Canada, as it applies to our oil companies, as compared with the United States, puts them at a definite disadvantage.

All we are arguing for is that they should be on at least a comparable basis. Then if they are small companies they have to take the inevitable result of facing a bigger competitor; but today they have to face that situation plus the disadvantages of the more restricted tax structure in this country.

THE CHAIRMAN: In other words, you should not add to the penalty of being smaller?

MR. MANNING: That is right.

THE CHAIRMAN: Just on that point, I am not trying to argue the case of the smaller Canadian companies, but it is said on occasion that Canadians



generally, in the broadest sense, have been too cautious, and that they have missed the boat as far as this great oil development in Alberta is concerned because they have not been willing to risk their capital in the development of these reserves here, in the way that Americans have been; in other words they have not been willing to take the risks.

Quite obviously if it is a very large company and you have a lot of capital and you only invest a small percentage of that capital in any one direction, though that small percentage may represent a number of millions of dollars, still it is not much of a risk in relation to the whole; whereas if you were in charge of a small amount of capital and you tried to match the same number of dollars, it might represent a very high percentage of your total and in that event you would be taking probably a very unjustified risk.

I just wonder if there is anything in that kind of thought, whether you people feel that Canadians have been far too cautious in their investments in this industry here.

MR. MANNING: I feel that two factors bear on that. One is the factor you have already touched upon, that the smaller aggregate amount of investment capital under the control of investment houses in Canada, as compared with large organizations in the United States, does tend to enable the United States investor to take what to him is a lesser risk than a smaller investment would be to a Canadian





investment firm. But it is our feeling -- and we do not say this critically of our own people -- that investment capital in Canada has been over cautious. We feel it has definitely been more conservative and cautious than even organizations of comparable size in the United States, particularly in the field of resource development.

I may say that in the early days of the oil development here, while our policy has always been to insist upon the development being done by private enterprise, we did feel some responsibility to try and induce investment capital, when we saw the tremendous volume of investment capital that would be necessary for this kind of development. We tried to induce capital both in eastern Canada and in the old country. As far as the old country capital was concerned, it was hemmed in with problems of convertibility and so on, which just about eliminated it. I am speaking now of away back even before the war.

The eastern Canadian capital in the early days of our development was very slow in seizing the opportunities we thought we saw at least in this part of Canada, and which, as it has turned out, have developed since.

We have been criticized in this part of the country for encouraging or even permitting the large entry of United States capital for the development of our resources, but I can say that we only sought that capital after having tried unsuccessfully to get eastern Canadian capital. We did not have it in the



west ourselves; we just did not have that kind of money available in the limited population of the west. The eastern capital was very slow in believing there was a great potential here in those early periods of development. The United States capital, on the other hand, was ready to take the risk, and after they broke the ground the Canadian capital came along and was a little critical that the other capital was there; but if we had waited for Canadian capital I am afraid we would be a long way from where we are today.

When I say that, certainly as a matter of policy we favour and desire to see the largest possible percentage of Canadian investment in the development of our resources, because we feel it is sound that the resources of a country should be developed by its own people, as far as that can be done.

THE CHAIRMAN: In the summary of this section of the brief there is this statement:

"It is believed that there will be continued incentive to undertake exploration and development and that this will lead to the large expansion of Alberta's oil and natural gas industries."

So I take it that you think there is still an opportunity for Canadian capital, even though it was a little slow in the beginning?

MR. MANNING: This is the land of





opportunity, sir. We have only scratched the surface as far as development is concerned, and I think that concept is held by the investment companies and the development companies, which is borne out by the fact that notwithstanding the fact that we cannot market nearly all the production, presumably, from our present wells, and notwithstanding the problems of processing the gas and these other matters we have been discussing, we have found even recently in the sale of our crown reserves that the competition in our last sale was the highest we have ever known, and the prices paid in many respects reached a new all-time high. I think perhaps that is the best yardstick to express the view of the investors of the things being developed.

MR. GRAUER: It is correct, I believe, that for the last several years the question of markets has been an important one, rather than production. That is, production has been in sufficient volume to supply larger markets than have existed, and that has lead to a quota basis in allocating the markets to production, has it not?

MR. MANNING: That is true.

MR. GRAUER: How does that work out with respect to the small producer and the large producer, the producers we were talking about a while ago? Does it raise any problems with the small producer?

MR. MANNING: I think I will call upon Mr. McKinnon, the chairman of the board which allocates the quotas, to give you a brief summary of how these allocations are worked.



MR. McKINNON: The board's formula for allocating production to market demand is based upon giving every well in the province what we call an economic allowance, what you might call a living wage. That economic allowance is supposed to reflect to some extent the capital cost put into the drilling of a well.

After each well in the province has been allocated an economic allowance, the balance of the provincial demand is then allocated among the various fields or pools on the basis of what we call the maximum progressive rate of production for wells, or the maximum rate of production for a pool. In that way I think everybody is assured of a fair share of the market; at least of a living wage.

THE CHAIRMAN: Again there is a penalty for being small, in the sense that the share that the small fellow would get may not be sufficient to meet his carrying charges?

MR. McKINNON: I think it will be comparable to his investment, though. There is some hardship on that basis, but I would like to point this out to you, that it is the wells that have the big production that are penalized first, and that they bear the brunt of the rationing of wells. The wells that have the small potentials produce practically at their normal rate, or very close to it.

THE CHAIRMAN: A new pool may be discovered next week and the fact that under this system he is assured some share of the market is a



necessary incentive, is it, for him to proceed to develop that well?

MR. McKINNON: If he is allowed to start with a few days of testing, then he gets to produce, and comes under the board's M.P.R. formula, which you might say is the engineering concept of allowables -- in the discovery of a new field there is a discovery factor increasing the allowables, which is to encourage people to go out for development. In other words, in a new field they would possibly get two and a half times the allowables to start with that they would get when the field was opened up; and it is graduated down as development takes place.

THE CHAIRMAN: Thank you. Thank you very much, gentlemen. I think we should leave this now for the members of our staff, who are more knowledgeable about this matter than we are; but we are grateful to you for clearing us up on a number of matters about which we were hazy.

MR. PATRICK: I wonder if there are any other questions on the special submission you wish to ask while Premier Manning is here.

THE CHAIRMAN: Thank you. Mr. Manning, on page 11 of the special submission there is a suggestion about what the policy should be in reference to the marketing of grain.

I should say that quite obviously the question of the present surplus is not a matter with which this commission is concerned or over which it





should take up the time. On the other hand, in any forecast or assessment of future developments in this country over a term of years, quite obviously we have to think about the grain business; and if surpluses have occurred during the last two or three years, presumably we should wonder whether they may occur again at some time in the future, when this present surplus is disposed of. So we are particularly interested in any views which may be expressed to us in various parts of the country on this subject.

This policy which you advocate, as I understand it, is that the present surplus should be moved either by granting credits to purchaser countries or by accepting the local currencies of the purchaser countries for conversion into our currency or conversion into goods at some future time, depending upon circumstances.

The first question I asked this morning was whether those two proposals have equal merit, in your opinion, or whether one was preferable. Second, we were asking whether there was any likelihood in your opinion that a policy of this kind would be acceptable to the United Kingdom, for example, which has not shown any great interest so far in purchasing grain or, with some exceptions, other commodities, on a lend-lease basis, or on a basis that would really increase the supply of sterling that was at the disposal of some foreign country.

I wonder if you would care to enlarge on this suggestion as a proposal for handling surpluses



of agricultural products, or perhaps grain, if that is what it is intended to do, and which of the two alternatives you would prefer.

MR. MANNING: Perhaps I might say that these suggestions with respect to the possible movement and marketing of grain are not advanced as any dogmatic projects that can be implemented without a great deal of investigation and perhaps modification; but it is our view from the experience of the past number of years that we reasonably should expect in future years a reoccurrence of this problem of grain surpluses.

That was why we felt it came within the scope of the commission; not the present surplus, but looking forward to a possible repetition.

Our thinking is that while we have in certain exporting nations today substantial surpluses of grain, there are certainly many areas of the world where grain is in very short supply. The problem, therefore, is how we can eliminate that rather paradoxical situation.

In suggesting these two possible alternatives for consideration, all things being equal, I think we would put the acceptance of the currencies of other nations ahead of the simple extension of lines of credit; but again that might not always be the case. I think it would depend in every instance upon the circumstances of the nation with which you were attempting to make an agreement. In some cases the acceptance of their currency, in our view, would be definitely to be preferred over merely extending them





a line of credit.

The reason I say that is that if you accept the currency of a country you make the transaction a more complete arrangement than if you merely extend a line of credit, which means they incur a debt which gives them concern as to what the future repayments will be. On the other hand, the acceptance of soft currencies of those nations, currencies which are not readily convertible or not convertible at all, would still necessitate on the part of the government of Canada some extension of their own national credit to pay for these products, as far as the producer is concerned, since obviously they could not pay him in the currency they were accepting. So even though the currencies of the other nations were accepted, it would still necessitate an adjustment and extension of national credit to complete the whole transaction, only then it would be an entirely internal arrangement instead of the extension of a line of credit to a foreign country.

Then on the other hand the extension of credits to certain possible purchasing nations comes back to the question of price. It would seem that if Canada undertook to extend a line of credit to some potential purchasing nation for the specific purpose of buying surplus Canadian grain, then there would be a much more suitable opportunity to negotiate as to price, volume and all those other factors than would be possible if you merely said, "We will accept your currency in exchange for certain purchases made in



Canada." In those cases there might be greater advantage in the extension of a line of credit.

As I say, these ideas are more to suggest courses which we feel should be explored to resolve the paradox of having Canada, the United States, the Argentine, Australia, and a few other countries worrying about surplus grain products, when other areas of the globe, as we know, are in short supply.

As far as the United Kingdom is concerned, I am only expressing an offhand, personal opinion; but it seems to me that those nations which have been the main nations in the negotiation of trade agreements possibly would not come within the scope of suggestions of this kind at all. We are thinking more of trying to get markets which are not being supplied by anyone today, for the simple reason that they are in nations which are not in a position to enter into agreements because they have no way of paying for grain.

THE CHAIRMAN: Paragraph 2 goes on to say:

"The price of such export grains must inevitably become a competitive one which will not encourage grain production on any other basis than high efficiency and economic soundness."

Does that mean that the price to the farmer would be reduced so as to discourage production?



MR. MANNING: I would rather put it the other way around; that whether you are speaking about a negotiated export price under some arrangement of this kind or speaking about putting floors under domestic prices, proper consideration should be given to the efficiency of the operation. In other words, the price should not be increased to the point where it encourages production merely because we are bonusing an uneconomic operation. We do not feel that that is sound, to ask the national economy to stand the bonusing of inefficiency.

THE CHAIRMAN: Last week we were in Winnipeg and Regina, and we heard a good deal about marketing schemes and the Canadian wheat board; and in some cases we heard the strong view that the board principle should be extended to livestock and other farm products. Would you care to give us your views on the question of marketing schemes?

MR. MANNING: Well, sir, we have always thought that there is a very fundamental difference between grain products, which are more or less non-perishable, and perishable goods such as the example you mentioned, livestock, where they have to be marketed at certain times and where grade and quality and so on are important.

As a matter of policy our strong conviction is that the free, individual, competitive enterprise system of marketing is best. We do not feel that it should be set aside, except in perhaps some cases where the commodity must be marketed on a





world market, and the control of the market is therefore entirely out of the hands of the regulatory authorities or the producers themselves.

We have in this province within this last year passed enabling legislation for other forms of marketing boards; but even there livestock is excluded by statute, because we did not feel that was a commodity for which there was any great demand for that type of marketing in this part of Canada. In the second place, there were very grave doubts in our minds whether that is the type of product where a board would be of any advantage. In other words we do not feel it is comparable with the situation with respect to marketing grain on the world market, where the factors are so different from the more or less domestic market for livestock products.

THE CHAIRMAN: In some of the statements which have been made to us the suggestion was put forward that encouragement should be given to farmers to get out of the production of wheat and, where it was possible, to get into the production of livestock. We were told that if that were done the production of livestock or processed meats would increase to a point where we would be dependent to a considerably greater extent on export markets.

If that should happen, and if the export markets were available, might that modify your feeling in the matter?

MR. MANNING: Certainly not as to the principle of marketing. It seems to me that the



fluctuation of agriculturists into and out of the livestock field is something which is pretty automatically governed by supply and demand. If grain prices fall and they can make more money by feeding the grain to livestock, the average farmer who is alert to the necessity of adjusting to economic conditions will make that change. When the pendulum swings the other way, he will go back into grain. I have very grave doubts whether you will improve that situation by compulsory, arbitrary marketing boards for perishable products.

Our view as a government is that while in principle we feel that the individual competitive system of marketing is the best system, just as we believe it is the best in the field of production, on the other hand we do not quarrel with the right of the producers if they want to combine together to try out some of these things. But as a matter of principle we do not feel there is too much room to hope that there is any great solution to marketing problems in that type of commodity in the compulsory board marketing scheme.

THE CHAIRMAN: It was suggested to us that in the case of grain, and I think also in the case of livestock, there should be minimum price guarantees in order to give the farmer some protection. I was going to ask you about that, but I presume from what you have already said on the subject of wheat that the price should not be such as to encourage uneconomic production, and I presume that is more or





less the answer you would give to the question I was going to put.

MR. MANNING: Perhaps I might just enlarge on that to this extent. We are favourable to the establishment of a basic floor price in these industries which in our view are fundamental to the strength of the Canadian economy but, as I said, we feel that those levels should not be such as to be an inducement to uneconomic development.

In that regard, as far as grain is concerned it has seemed to us that there is room for very careful study of the possibility of a two-price system for grain; that is, a difference in price as between the domestic market, where certain floor levels may apply, and the export market which in our view is another field altogether. We do not think you could put floors under export market prices at the producer level, but we do feel there is quite a good argument for a two-price system as between the export and the domestic market.

THE CHAIRMAN: It was also represented to us that there should be some form of crop insurance scheme introduced to protect farmers in cases where, through weather conditions, they have particularly bad crops. Would you care to express a view on that subject?

MR. MANNING: Well, sir, over the years I think quite a few studies have been made of the possibility of crop insurance. The principle is very attractive, but the practical application of the



principle is the point at which most of these schemes always break down. The difficulty has always been just where you draw the line; whether you are going to include drought or flood or hail or frost or any one of the innumerable things that can interfere with the production of a crop. If you include them all, any estimate of what the actual risk is becomes so indefinite that it is almost impossible to get a scheme which will survive without making the cost almost prohibitive.

I think everyone agrees that the farmer follows a most hazardous occupation; but whether it is possible to work out an over-all system of crop insurance I do not know. The studies we have looked into have indicated that there has been no practical solution found yet, although of course that does not mean one cannot be found.

THE CHAIRMAN: The point was made, of course, that in other areas of the country labour has certain security behind it in the form of unemployment insurance, pension plans, and so on, while the farmers were the class who had to take all the risks and did not get a fair shake. I daresay when we get down to eastern Canada we will hear some other views, but in the meantime we are interested in hearing your views.

MR. MANNING: That, of course, is a very understandable view; but the practical problem of working out some form of insurance is the wide range of unknown hazards. Nobody knows whether there is going to be a drought or a flood.



THE CHAIRMAN: And of course nobody knows whether there is going to be unemployment.

MR. MANNING: I suggest the factor there is much more practicable than when you have to rely on the weather.

THE CHAIRMAN: On page 10 of the summary, in item 3 you recommend some form of long-term credit for agriculture to meet the special requirements of young farmers, and so on. That is a subject which has come up each day since we have been in the west, and I wondered whether you would care to develop it a little bit, to indicate the kind of assistance you may have in mind, the amount that might be advanced to any one farmer, the length of time for repayment, and the terms; whether they would be interest-bearing loans or non-interest bearing, and some discussion of how the loans should be repaid.

MR. MANNING: Well, sir, I think the need that gives rise to this type of recommendation is the fact that in recent years the capital costs of becoming established in the farming industry have gone up so high that the average young man today wishing to start in farming is faced with an almost impossible situation, unless he has some source of capital other than his own. In the old days he could start out by renting a farm with a relatively small amount of capital. He could get the necessary equipment, and finally borrow enough money to purchase a farm. Today, with the capital cost





so high, that situation has changed.

We certainly would not favour any programs which would bring about the opening up of unsuitable areas or marginal land. We think they should be confined to those areas which would guarantee an opportunity for economic production. The same care should be exercised in the selection of the men who would receive the assistance. Perhaps there could be some system such as was operated under the Veterans Land Act, under which those who would be helped would be those who definitely had the aptitude for agriculture.

Then on that point it does seem there is need of a source of low cost capital on a long term, and I would think it would have to be at least twenty years to meet the need. In our view young farmers should get long term loans at low rates of interest. We do not think they should be interest free, because somebody has to put up the money. We believe they should be at low interest rates and amortized for twenty to twenty-five years, primarily for the purpose of providing capital rather than operating costs.

I may say we have a very limited form of this assistance in the province, set up only recently. It is legislation under which we will advance up to \$1,000 for the clearing and breaking of approved land, but that does not go nearly far enough to touch what we feel is the major problem, which is the capital cost of machinery and other



farm equipment. It is our view that the individual starting in to farm should be able to put up a reasonable stake of his own in order to qualify for assistance of this kind, so he will have a very definite equity in the project from the start; but fundamentally it boils down to long term loans for at least twenty to twenty-five years at low rates of interest, primarily for capital equipment.

I might add this one further point. We have found in this province in the last number of years a large number of our older farmers who would like to retire or drop out of farming, who actually face quite a problem in disposing of their farms. A young farmer who would like to take over one of these farms cannot do so because he has not the necessary capital; and it is our view that this is a field that should be explored. Perhaps some system could be devised whereby these young farmers who take over some of these older farms from men who wish to retire could have some measure of credit which would enable them to take care of that first heavy capital cost.

THE CHAIRMAN: I suppose in that case there would be some restrictions, some rule of thumb, that would apply to the price which might be paid for land; but that is a detail I do not want to press.

MR. GUSHUE: Just one question in reference to page 4 of the special submission. You suggest that the government of Canada, through the Department of Trade and Commerce, take a more active





role in the encouragement of industrialization in Canada with emphasis on decentralization throughout all parts of Canada.

Apart from defence production, I was wondering if there was anything in particular there; or is it just on a general basis?

MR. MANNING: The only direct industry, of course, that would be under the direction of the government of Canada would be defence industry, or industry in which the government had a financial investment. The only thing that could be done, apart from that, is that as a matter of general policy that could be purely a matter of inducement, not a matter of government direction.

MR. GUSHUE: I was wondering what the inducement might be, other than any inducements which might come from the separate provinces.

MR. MANNING: The inducement would be limited. If the national policy were known to encourage decentralization, then there might be some possibilities in the field of national defence or other aspects within the jurisdiction of the national government. They would be limited, outside of defence production.

THE CHAIRMAN: Well, Mr. Manning, we are most grateful to you. You have been very helpful to us in the way you have answered these questions which were bothering us. I think those are all the points we were particularly anxious to have your views on, and all I can add is that again we are very



grateful and thank you very much.

MR. PATRICK: The next section of our program is the survey of production; and while Mr. Manning is here, together with the people from the Department of Mines and Minerals, I would suggest that we take the second part first, dealing with petro-chemical industries, which is so closely related to what we are dealing with. Dr. Donald Quon will read that summary, and Mr. Govier is here now in case any questions arise.

MR. QUON:

The petro-chemical industry, which produces largely synthetic organic chemicals, has enjoyed a phenomenal growth in the last 15 years and has emerged as one of the major basic industries of America. This expansion is likely to continue at a rapid pace as synthetic organic chemicals replace more and more natural products in such applications as clothing, rubber goods, soaps, medicines, and building materials. Petroleum and natural gas hydrocarbon appear to be ideal raw materials for organic syntheses, being plentiful, cheap, and extremely versatile chemically.

An authoritative forecast of United States petro-chemical production



for the next 20 years has been prepared by the President's materials policy commission. It predicts a nearly threefold increase in the industry from 1955 to 1975 but does indicate a declining growth rate as the industry approaches maturity.

A survey of the Canadian chemical and petro-chemical industries shows: (1) that the American and Canadian growth rates are about the same, and (2) that the production and use patterns are basically similar although there is a 5 to 10 year lag in the Canadian development. With the existing tariff structure and with the growing strength of the Canadian chemical industry, it is likely that the Canadian production of chemicals should keep pace with, if not exceed, the chemical needs of the national economy. It was, therefore, decided to apply the commission's projected growth rates to the Canadian petro-chemical industry, but with a 5-year lag. Since the capital worth of the industry in Canada now is about \$300,000,000, this means that a billion dollar industry is forecast for 1957, with an estimated production of some \$800,000,000 annually. Even with this large growth,





however, the hydrocarbon requirements of the petro-chemical industry will be small compared to the fuel requirements, only about 3 to 4 per cent of the total gas produced, and around 2 to 3 per cent of all the crude oil refined will be required as chemical raw materials.

The pattern of Canadian petro-chemical growth is expected to follow these general lines. Those processes, making high value end products and based on high methane content natural gas, will find Alberta economically attractive; those processes, based on aromatics from petroleum fractions, will likely build in eastern Canada; the location of those processes, based on the higher paraffin hydrocarbons available from either natural gas or refinery off-gases, will depend on existing local economic conditions.

Alberta now possessed, in terms of capital expenditures, about 40 per cent of Canada's petro-chemical industry. There are reasons to believe that this figure will rise to 45 per cent in the long term. Projection of Alberta's petro-chemical growth suggests an industry worth some \$450,000,000 by 1975, with an annual production of



about \$360,000,000.

THE CHAIRMAN: Thank you very much. I think the premier was kind enough to give us an answer to the main question we wished to ask.

MR. GUSHUE: You refer to the existing tariff structure. Could you elaborate on that a little and let us know what the structure is?

MR. QUON: It depends upon whether or not a particular product is manufactured in Canada. We have two different scales. For those products that are made in Canada I believe that to get tariff protection a company has to show that it can satisfy 10 per cent of the national need. Once it reaches that production it can apply for tariff protection.

For chemicals that are produced in Canada I think a fair estimate of the tariff would be around 15 per cent, depending on the category. There is the United Kingdom category, the most favourite nation category and there is the general category, which is hardly applied to any major countries. There are those two categories in the main, with the most favourite nation category perhaps 10 per cent higher than the commonwealth category.

MR. GUSHUE: What about the United States tariff?

MR. QUON: The United States tariff on Canadian sales into the United States is practically prohibitive. It is very high except for specialized items. The main one, of course, is fertilizer, which is a bulk chemical. It can be imported into the United





States without tariff.

THE CHAIRMAN: Thank you very much.

MR. PATRICK: I would like to suggest that we complete the survey of production, then, by referring to the first part, dealing with the manufacturing industries. I believe Mr. Istvanffy is going to read that.

MR. ISTVANFFY: I shall read these two sections together; I think they have a distinct relationship.

It is anticipated that the gross value of manufacturing in Alberta will increase from about \$570 million in 1954 to approximately \$1,580 million by 1975. Most industrial groups, of which there are 16 or 17 under the industrial code, will increase in proportion to population, but the iron and steel industry should triple the present value of production to about \$100 million annually; the petroleum refining industry should triple in value to about \$270 million annually; and production of chemicals and petrochemicals should rise to about \$400 million annually.

As far as the net value of production of all Alberta industries goes the proportionate importance of the commodity producing industries of Alberta is



expected to alter significantly by 1975. It is estimated that agriculture which now accounts for about 45 per cent of the net value of production, will account for only 19 per cent by 1975; mineral production, including petroleum, which now accounts for only 16 per cent of the net value will account for 36 per cent; and manufacturing, which now accounts for 16 per cent will account for 26 per cent by that date. Although the dollar value of the remaining basic industries will increase substantially, they will decline in relative importance.

THE CHAIRMAN: I would like to ask one more question referring to page 1 of the brief, on the subject of decentralization. I appreciate now that you mean the kind of industries that would gravitate to the chemical industry that will develop here, in reality a split-up of the manufacturing industries, like the automobile industry or something like that. I had thought it was a suggestion that some of the existing industries should be decentralized, which of course would not work. Their main complaint is that they have not enough production concentrated in the one place now to compete with their opposite numbers across the line; but I think I am clear on that now.

MR. ISTVANFFY: As a matter of policy I think Mr. Oberholtzer and Mr. Martin have a few words to say on that.



MR. OBERHOLTZER: This question was mentioned briefly this morning, and it has been partially answered already.

I think the view, put generally, is that if you accept the premise that it is good to have industrialization fanned out across Canada generally, then we out here would like to see that speeded up a bit -- not, as you suggest, by taking industries that are not suitable to this area and forcing them into the area at all, but by permitting those industries which might be equally satisfactorily located in one area as in another to get their chance out in this area.

That touches on the question of the attraction of new industries to Canada from outside sources, either the United States or European countries, as mentioned in the brief. We suggest that those industries which might come into the country should be given an over-all Canadian view before they make up their minds where they will locate.

The inference in the brief is that that is part of the Ottawa government's responsibility, and we would like to see that encouraged. The question of whether or not the federal government feels that there should be some general industrialization in Canada depends upon their thinking; but if it is assumed that they do, then we would like to see it spread out as much as possible across Canada, on the relative merits of the available locations.





THE CHAIRMAN: As we said this morning, any inquiries from United States firms that come to or are collected by the Canadian embassy in Washington, or by any of the Canadian consulates, are pooled together and sent in to the Department of Trade and Commerce. Then, as I understand it, they are sent out to the appropriate agency in each province. Then I suppose each provincial agency does its best, if it is interested, to persuade the prospective plant to locate in that particular area for which it is responsible.

Would you go further and say that it should be a policy of the Ottawa government to just send the inquiries to certain provinces and not to others?

MR. OBERHOLTZER: Not at all, sir. I hesitate to interject a note of disagreement here, but that is not what comes up here. Theoretically that is what is supposed to happen. We submit -- and I will ask Mr. Martin to comment on this as well -- that in actual practice that does not happen.

MR. MARTIN: Mr. Chairman, we have made the request which you outlined, through the provincial government trade and industry council to Ottawa. Perhaps the eastern provinces are getting their selection, but we very seldom see a report out here. When we do see it, it is about six months old and only concerns those industries that are looking for agencies, and so forth; but we do know of cases of foreign industries contacting Ottawa and being directed



through the Department of Trade and Commerce to a particular centre in eastern Canada.

We would like to see the practice maintained through the Department of Trade and Commerce whereby the trade commissioners themselves will direct the inquiries to Ottawa. They are not doing it now; they are not interested. They are interested in trade only. Where a case crosses their desk, however, they will direct it; and we would hope that those inquiries would be directed to the provincial governments so everybody would get a fair crack at them. I do not believe that is being done now.

THE CHAIRMAN: This is probably a very unwise thing for me to say, but many years ago -- I think about 30 years ago -- Mr. C. L. Burton, of Simpson's of Toronto, organized the Toronto industrial commission, and I happened to be its first secretary. Our objective, of course, was to attract industry to Toronto. I could not say whether or not we have had any measure of success, but there was a staff that travelled around the United States and really went to work on it. They had a fairly substantial budget, and certainly I would think that kind of competition would be pretty hard to go up against unless you had a similar body yourselves. I am told it is still active.

MR. OBERHOLTZER: I may be quite out of order, but I would like to take this opportunity to elaborate on one small angle of this, if I might?





THE CHAIRMAN: Yes, certainly.

MR. OBERHOLTZER: Undoubtedly -- and I am trying to be completely fair in this -- the majority of those industries are directed from the Ottawa area quite involuntarily and unintentionally. It simply relates to the fact that already the great majority of industry is located in that area; given any one hundred people who might be contacted in the Ottawa area on this matter, the great majority of them think first of that area. So automatically their direction relates to that area, and on that basis the prospective manufacturer or industrialist, particularly if he is from Europe, rarely gets west of the great lakes, and I say that advisedly; rarely gets west of the great lakes. So much of it is involuntary and I do not think deliberate. The other point is this.

THE CHAIRMAN: But you would like to have it deliberate in the other direction?

MR. MARTIN: We feel that if any impression is to be made it has to be deliberate, and it must be presented on that basis.

The other thing is that, relating back to the question of the federal policy on new industry coming into Canada, if that is undertaken then the standard policy of the Department of Trade and Commerce, which relates shall we say 95 per cent to pressing trade and 5 per cent or less to industrial development, may need to undergo some change.

MR. GRAUER: The net value figures which



were given for the present day, as compared with 1975; those are based upon observable trends, I take it. In other words that indicates what you can see in the future, without counting on any particular stimulus which may be given by federal government action or anything of that nature?

MR. ISTVANFFY: The current figures which are quoted here are Dominion Bureau of Statistics figures, of course. As to the three major figures given for 1975, in agriculture we expect a relatively large decline, because we do not expect any great expansion in agricultural production and we are just assuming that the unit value of the products will remain approximately what it is.

You have heard the petroleum brief. They are expecting a great expansion in mineral production.

In connection with manufacturing we have accepted Dr. Quon's estimate of the expansion of the petro-chemical industries and made our own estimates for the other industries, which we can expect to come in on the basis of increased population. Then we had to apply different formulas to work back to find out what the net value of the industries would be, and we got this type of breakdown.

As to the other industries, we do not expect any noticeable increase in trapping or fisheries, but we believe forestry is going to expand a good bit, thought not relatively, and we are looking for a big expansion in electric power,



as you say, quite apart from any distinct changes in federal policy, which of course could alter the picture in favour of manufacturing, for instance, if everything were directed out here.

THE CHAIRMAN: Thank you very much, Mr. Istvanffy.

MR. PATRICK: Next is the tourist industry, and I will ask Mr. Ralph Moore, deputy minister of economic affairs, to give that summary.

MR. MOORE:

The Department of Economic Affairs brief, in dealing with the travel industry, proposes the development of interprovincial travel; and a speed-up in the completion of trans-Canada highway to this end. The federal government is requested to encourage the construction of hotels, motels, tourist cabins and camps within the national parks and to facilitate amusement concessions to induce tourists to stay longer. "Tourist service week" is recommended as a federal government project while the federal government and all provinces are asked to induce the restoration of historic sites, monuments and cairns. Collective advertising by the province in conjunction with the Canadian government travel bureau is





suggested as a possibility in inducing tourists to Canada to overcome the present deficit between Canadian and American travel and the establishment of a Canadian government travel office in San Francisco or Los Angeles. A study of statistical compilation as presently undertaken by the federal bureau of statistics in order to establish more authentic travel records is also recommended.

THE CHAIRMAN: I must say I like your suggestion of developing a greater amount of inter-provincial travel. It would certainly be a great thing for this country if more Canadians were able to travel across it in the way we have been travelling.

MR. LUSSIER: You say the federal government is requested to encourage the construction of hotels, motels, tourist camps and so on within the national parks. Do you mean that those motels or hotels should be constructed and operated by the federal government?

MR. MOORE: No, sir; that more encouragement, more leniency, more leeway be given in the national parks to encourage private industry to erect hotels, motels, cabins and camps.

THE CHAIRMAN: If there are no further questions on this portion of the brief I think



perhaps we might have a break for ten minutes; the reporter is having a fairly strenuous job.

--- Recess.

--- After recess.

MR. PATRICK: Now we will proceed with the treasury, and I will ask Mr. Hawkins, the deputy provincial treasurer, to read that summary.

MR. HAWKINS:

A summary of the projected budgets of the province for the period from 1956 to 1985 shows a total expenditure of \$6,661,000,000 allocated as follows:

		<u>Capital</u>	<u>Ordinary</u>		
Highways	\$1,530,000,000	70 per cent	30 per cent		
Public works	405,000,000	70 "	"	"	"
Education	1,486,000,000		100	"	"
Health and Welfare	1,337,000,000		100	"	"
Agriculture	257,000,000	30 "	"	70	" "
Natural resources	227,000,000		100	"	"
Other expenditure	978,000,000		100	"	"
Loans	441,000,000	100	"	"	
	<hr/>	<hr/>	<hr/>		
	\$6,661,000,000	35	"	"	65 " "





During the same period, revenues are anticipated totalling \$6,548,000,000 from the following sources:

Natural resources	\$2,295,000,000
Taxation agreement or equivalent	1,450,000,000
Gas tax and licenses	1,230,000,000
Liquor profits	594,000,000
Other receipts	979,000,000
	<hr/>
	\$6,548,000,000
	<hr/>

The over-all estimated expenditures exceed the anticipated revenues by \$113,000,000 which amount will be provided from the liquidation of investments or some new source of revenue or from borrowing.

THE CHAIRMAN: Thank you. I think the thing that impressed us most in reading this brief and the discussion of the brief was that in a period of 25 years you only expect your present rate of expenditure to increase by 10 per cent at any one time, and as I remember it they come down again. That seems to be somewhat different from the expectations of some other provinces. Is that because your expenditures at the moment are relatively high on a per capita basis, or just that you are going to hold them in line? There is a chart somewhere in the brief.

MR. HAWKINS: Yes, there is a chart



attached to the brief, as the last page, which shows that.

Part of the reason is that in connection with highways, for instance, we estimate that it will go along at the rate of about \$56 million, but the time will come when that will level off. It will not increase, because at that point we will go in to an entirely different type of highway, such as super highways, cloverleafs and that type of thing, and we do not anticipate it will increase very much from the present expenditure, even if the population increases from 1 million to approximately 2 million.

THE CHAIRMAN: You are not afraid they will hold you to this? It is a very interesting table, and I did not want to let it go by without remarking on it, because I am sure in similar estimates some of the other provinces would show a very different graph.

MR. HAWKINS: Of course in a budget of \$223 million such as we have now --

THE CHAIRMAN: That is what I meant, that your budget is really much higher on a per capita basis than that of some other provinces.

MR. HAWKINS: It is a very large sum for a population of just over a million people, and I do not think it will change a great deal even if the population increases.

THE CHAIRMAN: Thank you very much.

MR. GRAUER: The provision for highways links in with what we have been saying about the



tourist industry; and from what you say and from your submission I gather that you expect to have a first class highway system as a result of this budget?

MR. HAWKINS: Yes. The Department of Highways could answer that better than I can, but that is what we expect.

MR. GRAUER: And that naturally would have an influence on the tourist industry?

MR. HAWKINS: That is right.

MR. PATRICK: We would like to proceed with highways next. The minister is here now.

MR. TAYLOR: Mr. Cronkhite, our chief design engineer, will read the summary on highways.

THE CHAIRMAN: Thank you.

MR. CRONKHITE:

The development of main and secondary highway systems following the depression and war years has reached a point which might be considered well in step with the times.

To this year the system totals some 5,300 miles in the main and secondary systems. Of this, 1,880 miles were complete with asphaltic pavement.

In the last decade construction of highways and roads has changed from extensive work to more intensive standards; in other words, a lesser





number of miles is being added to the system but at higher standards.

The increased density of highway users has dictated the transition from two-lane to four-lane highways on main routes throughout the province. At present some 36 miles of 4-lane highways have been completed with 44 additional miles under construction. With the advent of high speeds and increased numbers of vehicles, parking shoulders and other safety measures are being introduced on all main arterial routes.

Municipal road systems have likewise seen great advancement toward higher quality. The absorption of some district roads into the secondary highway system has aided to a degree in the upgrading of these local roads.

The trans-Canada highway initiated in 1950 for the construction of approximately 282 miles, is being pushed toward completion. To date about 215 miles have been completed with the exception of the final stage on a small portion. A further 65 miles from Calgary to Banff park should be completed within approximately three years.

Although the highways and roads



systems have been greatly expanded in the past decade, in particular, the larger portion of the increase in costs could be attributed to the type of construction being carried out. The construction standards have been greatly improved with a parallel increase in costs. It is, therefore, expected a fewer number of miles will be constructed annually.

It is estimated the main and secondary highway system will be extended from 5,300 miles at present to 6,700 miles by 1985. It is expected, however, that the paving of arterial main and secondary roads will increase at a much greater rate. Following this assumption, paved highways are expected to increase from 1,880 miles in 1955 to a possible 6,200 miles by 1985, based on a trend which has taken form in the past and on anticipated need for the future.

Four-lane highways are relatively new in the province. However, with the population and motor car densities forecast, approximately 700 miles of this type of highway might be expected by 1985.

Further absorption of arterial,





local roads into the secondary highway system is expected with the province constructing and financing a greater number of these directly.

With the emphasis on all-Canadian travel routes, for both commercial and tourist traffic, continued dominion-provincial highway ventures are considered desirable.

Following the expansion of military bases in the more remote areas and the need for future improvement of highways serving the far north, it might be considered that further federal aid is forthcoming.

Adequacy of the system of highways must be the forward look. Standards of construction employed now require large expenditures. However, the periods of service for the roads constructed will be much longer. In addition the highways constructed are of such dimension that they could be expected to accommodate the traffic for the normal life of the road itself. In order that these longer service roads may be properly developed, expenditures will have to increase above the point which we have now reached. The amount and rate of this increase is expected to be moderate



and uniform following the expected  
stable course of population growth.

THE CHAIRMAN: Thank you.

MR. GRAUER: With respect to municipal  
roads, do they have sufficient resources to finance  
them at a reasonable level?

MR. CRONKHITE: A good percentage of the  
money spent on municipal roads in the province today  
comes from provincial grants made available to the  
municipalities.

MR. GRAUER: The burden is falling more  
and more on the province, then?

MR. CRONKHITE: It would appear to be  
that way.

THE CHAIRMAN: On page 12 of the brief  
you refer to the fact that the construction standards  
have become more intensive and costly, and that this  
will reduce the rate of extension of the system.

What is the base of your highway  
construction here? Is it black top or concrete?

MR. CRONKHITE: Black top, generally  
speaking.

THE CHAIRMAN: Which requires more  
maintenance but is cheaper in the first instance; is  
that right?

MR. CRONKHITE: Yes, it is, considering  
our supply of materials for concrete, which is not  
the best.

THE CHAIRMAN: There is not much chance



of you going to concrete sometime in the future?

MR. CRONKHITE: There is always that possibility, but I would not forecast it.

MR. TAYLOR: Possibly I could supplement what Mr. Cronkhite has added. Because of the climate in this area and in this province we have largely adhered to the flexible type of pavement which, generally speaking, is a stabilized gravel base and the asphalt.

However, this last year we let a contract for one mile of concrete; not reinforced concrete but the rigid type of concrete. That test strip was designed by Canada Cement engineers; then our own engineers designed an asphalt road, or the flexible type of pavement, and those two stretches are lying in the same area and will take the same traffic. We expect to watch that test strip very carefully during the next few years.

There is a very careful study of the rigid type of pavement being undertaken, but to date we have adhered largely to the asphalt type.

THE CHAIRMAN: Thank you very much.

MR. PATRICK: I would like to refer back now to education, and I will ask that that summary be read.

MR. AALBORG: The summary of the brief by the Department of Education will be read by the deputy minister, Dr. Swift.

MR. SWIFT: I regret to say that the person who took the chief responsibility for preparing our brief is not here. He was the person referred to





this morning by Dr. Kindt as our wizard. We are without our wizard, but I shall do my best to deal with any portions of our brief in which you are interested.

Alberta's educational picture during the next 20 to 30 years will be affected by two factors: rising educational standards and a rising birth rate. The rising educational standards are indicated by better school attendance, less retardation of pupils, higher qualifications of secondary school teachers, lower pupil-teacher ratios, longer school years, longer attendance at school by students, and fewer ungraded schools, all as compared with conditions 20 years ago. The increase in Alberta's birth rate has been from a pre-war figure of 21 births per thousand of population to more than 32 in 1954.

As a result of these factors, it is estimated that our school population will rise from 207 thousand students in 1954 to 379 thousand in 1975, 482 thousand in 1985. While the elementary and junior high school population will more than double during the next 30 years, the number of senior high school students will



multiply fourfold.

During the next 10 years, to take the place of retiring teachers and meet the needs of new pupils, an average of 874 teachers per year will be required. Whereas now we have about 7,500 classroom teachers in Alberta, in 1965, 1975, and 1985 the corresponding figures will be 11,400, 13,500 and 17,200.

I do not suppose it is very significant, but I just obtained a figure this morning to the effect that we recognized for grant purposes, for the last school year, 7,880 teachers. So this figure quoted here is a little low unless - and I am not sure on this point -- Dr. Chalmers used the expression "class room teachers" to exclude certain supervisors and principals. But I would say the figure of 7,500 is low.

To house these children 524 classrooms per year for the next decade are needed, at an estimated annual cost of \$14,600,000. After 1965, building demands will be less but still substantial for another 20 years.

I would add, Mr. Chairman, that there is a portion of our brief which deals more particularly with vocational education, but in summarizing the brief





that was not included.

THE CHAIRMAN: Thank you. If this brief had been prepared in Ontario I would have been disturbed by the fact that it did not include any provision for the extension of universities. I have not got together with Dr. Stewart on this, and I do not even know whether the University of Alberta comes under the Department of Education, so that shows the extent to which we have been conniving on this one. But I was wondering what your expectations are as to the requirements for greater university facilities in this province in the next twenty-five years.

MR. SWIFT: First I may say that the University of Alberta does not operate under the Department of Education, although we have a certain intimate relationship with its operation.

THE CHAIRMAN: I did not mean whether it was operated by the Department of Education, but I wondered where its funds flow from.

MR. SWIFT: The University of Alberta is dependent in a very large measure upon provincial funds for its operation, and especially, of course, for its capital requirements. I would not undertake to quote any figures to you, but I would certainly say that the expectation is that the University of Alberta will require during the next few years additional funds in very large measure. That is to say, it is anticipated that the enrolment of the university will increase very substantially.

You will recall the proportion indicated



with respect to the senior high schools. I think we can be reasonably sure that the university figures would somewhat parallel those which are quoted for the high schools. In any event it will be necessary that large sums of money be provided from some source over the next 20 to 25 years for the expansion of the university facilities in Alberta.

THE CHAIRMAN: I am relieved. Thank you very much.

MR. GRAUER: This section, the summary of which has just been read, indicates quite a programme of expansion, as one would expect. Are there any problems which you foresee in that expansion, as you have laid it out here?

For instance, there is your supply of teachers. Apparently the ability to finance this capital program is not a problem. That was covered in the treasurer's report which seemed to balance very nicely. But in this summary here what if any are the problems which you anticipate?

MR. SWIFT: Well, that is not too easy to answer. Mention was made of a teacher shortage, and I think we can anticipate considerable difficulty in this field for a period of time.

Our immediate concern seems to be at the high school level; a shortage of teachers to teach in the senior high schools. These shortages at the moment are most apparent, perhaps, in the fields of mathematics and science, and in the specialized fields such as commerce and various technical subjects.





What our prospect is of meeting this demand it is hard to say. Many factors will affect it as the years go by, economic and other factors; but you may be interested in this information as to how we are doing as of now.

Well, we have enrolled in the teacher training institutions of this province at the moment some 928 students. However, these are in all years of the program, and it would appear that about 500 hundred of these may be expected to take schools next fall. Then we have an emergency program operating, and perhaps we may expect 80 or 85 from that source.

Then I am pleased to be able to report that Alberta has a favourable balance of trade in the matter of teachers. Last year there were some 331 teachers who came to this province from somewhere else; that is to say, we issued that many teaching certificates in this province based on credentials from other provinces or countries. We lose a number, of course, to other provinces and countries as well, but not as many as we gain.

It would appear, then, assuming that we will have about the same number from these other sources, that we can expect to have some 800 or nearly 900 teachers available to us next fall. You will see that this comes fairly close to the number which is quoted as our requirement, so our situation, while it is serious in this way, that we do not have all the teachers we require at the moment, or of as good quality as we would like to have, and while we will





have some deficiency, especially in the senior high schools, it would appear that we are roughly maintaining a balance at the present time.

As the school population begins to increase, however, and apparently at a more accelerated rate, we may find ourselves in difficulty. On the other hand, as that takes place there will be more students coming from our high schools, and we may have more candidates coming in.

MR. GRAUER: Do you lose many teachers to industry at the present time?

MR. SWIFT: I am afraid I could not undertake to give you any figures on that, but we do lose some. I can say this, which I know is subjective, that I believe we are not getting as many science and mathematics graduates into teaching as would be the case if they did not find there was more attraction to go into industry. These figures just represent a comparison as between two years, but I find them a little disturbing myself. A year ago we had 44 arts and science graduates in the faculty of education taking the one year teacher training program so they could qualify to become high school teachers; they had completed their arts degrees. This year we have only 22.

That may not be significant. Perhaps next year it will be back to 44. Perhaps some special circumstance has brought this about, but I think it is a bit disturbing that we have only 22 arts and science graduates seeking certification as high school teachers.



MR. GRAUER: If you have increasing industrialization that squeeze will become worse, presumably, will it not?

MR. SWIFT: That would be my opinion; yes.

MR. GRAUER: With respect to industrialization, which we have been told about, do you anticipate any dearth of technically trained people? Are steps being taken to provide for that?

MR. SWIFT: Mr. Chairman, in reply to that question I would say that relatively speaking, as far as Canada is concerned, I think we have a very good program of training along those lines. That is to say, we have a very active apprenticeship training program, I think the most active in Canada. We have a very fine institution at Calgary, the Institute of Technology and Art, which is mentioned specially in the brief, which is training a considerable number of technicians; and we have some training along those lines in our composite high schools. I do think we need to do more.

THE CHAIRMAN: On page 22 of the brief you say:

"Canada's economic development will be retarded unless steps are taken to provide facilities for training a sufficient number of technicians to meet Canada's growing industrial needs."





MR. SWIFT: Yes.

THE CHAIRMAN: I am going into that point because we were discussing it, and I wanted to know who you felt should take the initiative in that regard. Is it a federal matter? Later on you point out that the federal authorities repay 50 per cent of the provincial expenditures for apprenticeship training. Or is this a place for the provinces to take the initiative?

MR. SWIFT: I have no instructions from my minister on this point, and I might suggest that he speak to it. Speaking for myself, I think it is something in which all levels of government should be interested, starting with the school boards as we have them in this province, but perhaps more particularly the provincial and federal governments.

MR. AALBORG: Perhaps I might offer just a brief comment supplementary to what Dr. Swift has said. It does occur to me, and I would like to make the comment here, that since training for industry would involve the training of individuals who may be engaged in industry in all parts and in all provinces of Canada, it should increasingly become the concern of federal authorities to provide such education.

THE CHAIRMAN: Thank you very much.

MR. GUSHUE: I wonder if you might refer to page 5 of your brief. There are some rather interesting figures there, and perhaps you could give us a brief interpretation of them. I am referring to



table 3.

MR. AALBORG: Is there some specific question?

MR. GUSHUE: It rather looks as though you expect to attain more students in grades 9 and 10, and lose more in grades 11 and 12. Is that a correct interpretation?

MR. AALBORG: This table refers to the number leaving school. Consequently if you have larger numbers remaining in the school system and leaving after grade 12, that means fewer of them will have left in grades 10 and 11.

MR. GUSHUE: Leaving as graduates?

MR. AALBORG: Yes.

MR. PATRICK: The next subject will be municipal affairs, and I believe Mr. Morrison, the deputy minister, will give the summary.

MR. MORRISON:

Based on an expanding economy, it is felt that any increase in provincial population will be mainly urban in character. In the future the present rural population of 431,000 will remain constant. Therefore if the province attains a population of 1,850,000 people by the year 1985, we will have doubled our present urban population and in place of the existing 8 cities, 75 towns and 146 villages with a total population of



631,000, we will have 9 cities, 105 towns and 150 villages with a total population of approximately 780,000. The increase in population will bring about a demand for increased municipal services and the present yearly expenditures by municipal government of some \$90,000,000 will increase proportionately with a resulting bolster to the economic cycle of the province.

THE CHAIRMAN: We are hearing from the municipalites across the country, and we have had the advantage of reading the brief which Mayor Hawrelak of Edmonton will be presenting. As everyone knows, all the municipalities are having trouble financing, and I wondered if you had any views as to how their financing problems are to be accommodated. What should be done about it? Everybody has been talking about it for a long time, but what should be done?

MR. MORRISON: That is a pretty difficult question to answer. I believe governments all over the country are trying to find the answer to that question. In my judgement there should be a broader base from which the municipalities can derive revenue.

THE CHAIRMAN: And what form should that broader base take, in your view?

MR. MORRISON: Well, I don't know. At the present time it is pretty well restricted, of course,





to land and improvement taxation. The only method I can visualize at the present time is probably increased grants from the senior governments; and to do that the senior governments, provincial and federal, might have to impose a different type of taxation to derive more revenue, to give some of that to the municipalities.

The danger of increased grants from the governments, of course, is that the municipalities then tend to lose their local atonomy. There would be the fear that the senior governments would more and more be taking over their responsibilities, and would be dictating to them how and why they should spend their money.

I personally do not know the answer to the problem.

THE CHAIRMAN: Thank you. We have not a great many questions to ask on these sections of the brief, Mr. Patrick. These areas which involve the municipalities, which involve expenditures and what the economists refer to as social capital, whatever that means, are being studied by our staff and the statistics are being collected, but we have not very many detailed questions to ask at this stage.

MR. PATRICK: Then we will proceed with public health, Mr. Gordon, and the assistant deputy minister, Mr. Homan, will read the summary.

MR. HOMAN: Mr. Chairman and members of the commission,



many services that are in operation, such as tuberculos control and hospitalization, over-all communicable disease control, sanitary engineering control which includes sanitation, plumbing, water, sewage disposal, stream pollution and air pollution, social hygiene control, public health laboratories, cancer diagnostic and treatment services, cerebral palsy and arthritic clinic services, and other forms of public health programs or assistance, will probably increase in orderly fashion in direct relation to population.

Making a projection on this basis, the cost of the department will rise from \$20,000,000 for the last financial year in 1954/55 to about \$37,000,000 in 1985 calling for an increase in employees from 2,200 to 3,200 in this province. Local health services in the hands of cities and health units

-- by "health units" we are referring to the rural areas --

will increase proportionately also.

Medical services, dental services and nursing services will probably also increase in proportion to population.





### Dentistry

-- which is mentioned with the hope that it may increase faster --

should increase more rapidly to cover the need but we can't see this happening in the foreseeable future. Medicine and nursing services in Alberta approximate the Canadian average at the present time.

Assuming mental hospitals increase in proportion to population, 3,600 additional mental beds will be needed costing \$21,600,000, and 1,500 additional mental defective beds at about \$9,000,000, at today's costs.

Public general hospitals in Alberta are at present above the Canadian average in capacity and probably close to the optimum level at 6.8 beds per 1,000. Therefore by 1985, 4,480 additional beds would be required at a cost of \$54,000,000 at present building costs. Alberta is low in chronic beds

-- and I think that is true across Canada -

and about 2,400 will be needed costing about \$14,400,000. Based on present fiscal policies, provincial grants at \$750 per active bed and \$1,500 per chronic bed would call for an expenditure of provincial money



over the next 30 years of \$6,960,000.

Based on present fiscal policies  
in relation to operating costs of  
acute hospital service

-- and by that we mean active treatment --

provincial support would increase from  
\$14,500,000, the present level, to  
\$34,800,000 in 1985.

Mr. Chairman, in commenting on one or  
two points in this summary of a summary, I would like to  
point out that back in paragraph 2, where there was a  
projection made from \$21,000,000 to \$37,000,000, that  
projection is based on the current program and its  
costs to day; whereas if you go to the bottom of the  
page, where we refer to acute hospital services, it would  
then be hard to appreciate these figures without this  
little comment. That projection is also based on the  
present program but at full utilization, in that the  
current program does not have full utilization.

You will note that the summary here, as  
compared to the summary in the brief of the department,  
makes no reference to what will happen in the field of  
public health services in the event of national programmes,  
of say an all-inclusive public health programme,  
hospital and medical, or just one phase at a time, as  
those are fiscal policies presently under considerable  
discussion.

THE CHAIRMAN: Thank you.

MR. PATRICK: I will call on Hon. Mr.



Jorgenson to have someone read the summary on public welfare, and carry right on with that.

MR. JORGENSEN: Mr. Hagen, departmental supervisor, will read the brief.

MR. HAGEN:

The government of Alberta, working for steady improvement in measures of welfare, administers through the various branches of the Department of Public Welfare the services as set down by the legislature. The work of the department is done with a view to helping those who have met with unfortunate circumstances, and to assist those where rehabilitation is possible.

With the increased development of our natural resources and the state of flux that will exist as far as the population is concerned, it is reasonable to expect a corresponding increase in the welfare field.

There appears to be a trend away from unquestioned standards on which family life was based in our forefathers' day. Today these standards are being seriously questioned and in some quarters are being disregarded or ignored. This is part of the pattern in working toward maturity in the life





of our province.

While this state of mobility, and a changing emphasis on the basic values of family life continue, the effect will be reflected in the demand for welfare services. When a more static pattern of life has been reached in the future of this comparatively young province, we may then experience a levelling off period, but we do not predict such a period in the next 25 years.

MR. PATRICK: I think we will just continue with our last section, that dealing with public works, and I will ask Mr. Arnold, the deputy minister of public works, to read the summary.

MR. ARNOLD: Mr. Chairman and gentlemen,

The Department of Public Works spent on maintenance and construction during the 30-year period April 1st, 1926, to March 31st, 1956, a sum of \$115,810,710. During the next 30 years, April 1st, 1956 to March 31st, 1986, it is estimated that this department will spend \$484,100,000 or approximately \$16,137,000 each year.

The curtailment of capital expenditures during the depression and war years caused abnormal expenditures in the years 1954 and 1955 of



approximately \$17,000,000 annually. It is anticipated that this abnormal annual expenditure will decline slowly until 1963 when we expect the annual expenditure of the Department of Public Works to be \$14,000,000.

However, from the year 1963, the necessity of providing facilities for the steadily increasing population and expanding industrial economy will require a steady increase in the annual expenditure and it is expected that by 1980 the department will again reach an annual expenditure on capital and maintenance of \$17,000,000.

THE CHAIRMAN: Thank you very much.

MR. GRAUER: In the acute public hospital field, I take it the public general hospital provides the overwhelming portion of the service in that field. Is that right?

MR. SOMERVILLE: Yes. We are distinguishing there between what we commonly label the active treatment or acute hospital service, as against the chronic or the convalescent; by virtue of the type of plant required in the active treatment, which includes expensive facilities in the form of operating theatres, laboratories, specialized services and so on, as against the bed and board, long-term care in the other type of institution, not necessitating all the expensive medical





facilities. That we call a chronic or convalescent hospital.

MR. GRAUER: I gather that you are rather better off for beds in the acute hospitals than in beds for the chronic or mental hospitals?

MR. SOMERVILLE: Our active treatment figure is about the national average. Based on present thinking, we believe it is perhaps an optimum figure at the present time, because our efforts financially and otherwise are being directed to the convalescent type of hospital, which is the less expensive one. Otherwise our national economy is going to be paying out tremendous sums for the so-called asset of health, and I think that asset is becoming a matter of primary concern to our people today.

MR. GRAUER: Are you quite successful in getting patients out of the acute hospitals and into the convalescent hospitals?

MR. SOMERVILLE: From the point of view of provincial administration with respect to cost, yes. We have to maintain a very factual approach to it. There are occasions when the recipient of the service may still remain in the active treatment hospital because we have not the desired number of chronic or convalescent facilities. They are being actively pursued, and we anticipate that Alberta will be in the forefront in providing those facilities.

MR. GRAUER: That is the next point I want to come to. I gather that there is somewhat of a lag; but you have no financial problem or anything like



that?

MR. SOMERVILLE: On the contrary; because a part of this expense, based on the fiscal policies in Alberta, goes back to the local government. The local government, as was mentioned earlier, has its problems in connection with roads and municipal affairs generally, including schools, hospitals, health and so on. There are many ways, of course, in which the municipalities of this province are benefiting, through low interest rates and long term loans, which help them.

MR. GRAUER: That is where the financial problem appears, is it; at the municipal level?

MR. SOMERVILLE: That is where exploratory efforts are being diverted at a very much increased tempo. A recent convention in this city of representatives of urban municipalities across Canada I think came up with a unanimous resolution to the effect that the senior governments be entirely responsible for all costs of health and education.

THE CHAIRMAN: Well, thank you, Mr. Patrick. I do congratulate you not only on the excellence of the brief which has been presented to us today, but also on the very effective way in which you decided to present it. It seems to me the presentation today, from our standpoint anyway, has been first class, and we are very grateful to you.

MR. PATRICK: On behalf of all those



who did the work, I accept that compliment very  
humbly.





THE CHAIRMAN: Is Mr. Anderson here, of the Eastern Irrigation Association? Mr. Anderson, we will label your brief Exhibit 48.

MR. ANDERSON: You do not have copies of it?

THE CHAIRMAN: No.

MR. ANDERSON: Mr. Chairman and gentlemen,

~~it is recognized that large portions~~  
of southern Alberta and Saskatchewan are located in a semi-arid portion of Canada. This land, mostly all fertile, needs moisture to produce abundantly. In these areas, where 5 to 6 inches of rainfall normally fall in the growing season, and 15 to 24 inches are required to produce crops successfully, farming under irrigation is an economic desirability.

Presently operating irrigation districts are furnishing homes and a density of population with a resultant community life that would be impossible under the dry farming or ranching conditions that were common before irrigation. We believe the stabilization of the population by assured agricultural income is of great value to the entire nation. The improved standard of living that arises, and the development of



co-operation so necessary to the successful operation of an irrigation district, have a remarkable effect on the progress of the community and eventually on the entire nation.

Irrigation district farmers in southern Alberta grow great supplies of livestock feeds, hay and grain which act as a reserve in times of drought, and as a basis for the hog, cattle and lamb growing and fattening operations. Many ranchers welcome the opportunity of feeding and finishing their livestock on irrigation-grown feeds and appreciate the advantages offered enabling them to make full use of their own natural grazing. The specialty crops of sugar beets, canning crops, and vegetables make available to our growing population vital and tasty foodstuffs, in a very economical manner.

The soundness and continuity of the irrigation farmer's income is reflected to advantage throughout the entire nation. A constant market for farm machinery, field and household equipment, furniture and clothing creates labor and new business across the country. Railway, highway and air transportation companies find increased





need and use for their services in supplying the customers in irrigation areas.

With the natural and rapid population growth which will take place all over Canada in the next 25 years and with the strategic location and wonderful climate which southern Alberta and Saskatchewan enjoy, it is inevitable that a considerable population increase will occur in these areas also. Many of these potential newcomers will seek irrigation agricultural areas of proven reputation. Many will no doubt seek similar land adjacent to irrigation districts in the belief that irrigation construction will be a constant and continuous development.

Private railroad and government investment in irrigation construction of former years has been justified by the transformation of endless prairie with sparse population to a land of productive farms, with progressive towns and growing villages. The new wealth these communities create is a well defined incentive for further consideration by senior governments for planned irrigation development and water conservation.



We know of and appreciate fully the wonderful efforts the dominion and provincial governments have performed in the past to promote irrigation in this semi-arid country. We do not urge that a continuous plan of irrigation development for immediate land use be embarked on. We believe that irrigation development should rather be cautious and constant, ready to serve the needs of the growing population when market demand warrants.

The one major point in the irrigation farmer's thoughts for the future is his concern over the supply of water. With the use and need for water in the growing industrial, residential and power development projects which accompany the enlargement of any new country, the irrigation farmer's water needs could easily be shunted to the background.


The western provinces have large amounts of water in their rivers, which at present flow undisturbed and unused, and eventually reach the Arctic or Pacific oceans. We believe that intelligent and courageous storing of these waters by the construction of dams on the rivers, will be of



inestimable value to the residents of this country in the years to come. By so doing these waters can be put to beneficial use for agricultural bodies and hydroelectric groups, and the citizens of the future will also benefit from their use as game and holiday preserves. As these waters are of an interprovincial nature, we believe that the erection of these dams should be in charge of and paid for by the dominion, with the approval and consent of the interested provincial governments.

We maintain these dams and reservoirs, as they feed needed waters to thirsty land in irrigation areas, could prevent a repetition of the terrific economic losses often suffered by the country as a whole in times of drought. We recognize that the drought cycle has not disappeared.

We believe it advisable, and would like to recommend that the dominion government maintain a staff of experienced reclamation engineers for consultation, advice and ready assistance to the western Canada irrigation area. Most successful and practical developments in any proven irrigation area employ competent maintenance engineers







whose work is limited to the operation of their own projects.

Technical reservoir and soil engineering problems which occur in water storage and land development are in the narrow field reserved to highly trained specialists, who by the wide nature of their work are better employed by the government as a whole instead of by smaller sections of the irrigation economy. A planned development authority as above described with power to create the necessary storage system to preserve the vital natural resource of water for our future citizens could give invaluable aid to the development of western Canada.

Any country without an adequate water supply is a country without a future.

THE CHAIRMAN: Do you think the program could be conducted cautiously?

MR. ANDERSON: Internationally, in view of the experience of the last 35 years, I would say yes.

THE CHAIRMAN: Well, that is a fair amount of experience.

MR. LUSSIER: Do you mean there were



some errors committed in past years?

MR. ANDERSON: How much may I say here?

THE CHAIRMAN: As much as you like.

MR. ANDERSON: There was a great deal of enthusiastic planning in the past, especially in shall I say the 1906, 1908, 1910 and 1911 era; and because of that planning we poor rascals who came in here in 1916 to 1920 had to suffer.

You said I could go as far as I wished. Let us go back to the irrigation development. In 1886 and 1888 the British government went into Egypt and India and did wonderful things there. In 1890 and 1905 - 10 the United States government, especially under Teddy Roosevelt, did a wonderful job of developing the western United States.

So the Canadians had to follow the Americans; you always have to follow somebody. In those days it took 40 to 50 acres to produce a steer. The railroad people, mainly the Canadian Pacific Railway, had a lot of vacant land, and they thought they would get a good deal of revenue from it if they did as the American government had done and put in irrigation schemes, hoping to bring in settlers to develop that land.

Along about the same time, in the era from 1906 to 1911, 1912 and 1914, private British capital came in to do the same thing, because of the terrific expanse of vacant land which would be suitable for agricultural production in southern Alberta. The climate was good, the soil was





wonderful; markets would be found somewhere. So they spent a lot of money, and they expected to have the same thing there as they had in the United States.

So they spent \$10,000,000, \$15,000,000 or \$20,000,000 in developing 200,000, 300,000 or 400,000 acres of land and selling it to settlers, with the settlers paying the initial capital cost of the development of that land by the price being raised from 50 cents an acre to \$30 or \$40.

The original settlers who came to southern Alberta in the era from 1910 to 1920 were the boys who experimented and found that could not be worked out satisfactorily, whether it was private capital or railroad capital.

Later, in 1922, the provincial government found that irrigation development did help as far as the production of crops was concerned, and as far as bringing people into the country was concerned; but the people of those days, because of economic circumstances, could not pay the cost of developing the land. Conditions were bad, so in most cases some adjustments were made.

We say the railroad companies in the long run did not lose any money. I am speaking now of the Canadian Pacific Railway. They brought in enough settlers to southern Alberta so that even though they spent some \$13,000,000 in developing the semi-arid land, and while they operated their irrigation district in a rather haphazard manner and mainly as a settlement scheme, they created a



little empire of 1,200 to 1,300 to 1,400 farmers who produced a lot of goods and who bought machinery and furniture and clothing from the east and sent all their produce east, so the railroad companies returned their initial expenditures. They did not return it from the sale of land, but they did in returns on freight and express. The private companies which came in with English money, I suppose lost practically all of it.

THE CHAIRMAN: But the present situation, and the future, is what we are concerned with.

MR. ANDERSON: Well, we judge the future by the past. Here I believe irrigation development should be constant but cautious -- and I hope it has not taken me too long to answer this question. There were some incautious irrigation developments in the early years. We hope, from the experience we have had, that we may prevent any further incautious development.

THE CHAIRMAN: Thank you very much, Mr. Anderson.



THE CHAIRMAN: Now I understand that Mr. M.W. Mackenzie, president of Canadian Chemical and Cellulose Company, Ltd., is going to present a brief to us, which we will mark as Exhibit 49.

MR. MACKENZIE: Would you rather have me read this?

THE CHAIRMAN: I think that would be the easiest way to do it.

MR. MACKENZIE: Mr. Chairman and commissioners,

the view that I submit for your consideration is relatively simple and perhaps obvious, but I believe it to be of importance. It is that Canada's economic progress during the next twenty or thirty years will depend in large measure upon our development and diversification of what are commonly called our secondary manufacturing industries. So many factors affect our economic progress that no single factor can be said to be the only answer. I believe, however, that the development of secondary or advanced manufacturing is in the first rank, and that nothing exceeds it in essentiality.

In developing this view, I propose to outline the experience of the company





with which I am associated, Canadian Chemical & Cellulose. This provides a good illustration of the points I am submitting, and as a case history it may interest the commission.

My submission starts with the premise that we must have in this country, for its continuance and future well-being, a population much larger than we have at present. It has become a commonly accepted view that Canada has resources sufficient to support a substantially increased population. Estimates of what the increase could, or should, be vary a good deal, but few of those who have studied the subject seem to put our supportable maximum at less than three or four times our present population or, let us say, not less than some 50 million people compared with our present 16 million.

For purposes of this submission, the figure is a matter of interest rather than of importance. The matter of real importance is that we should aim at having Canada accept and obtain the maximum population the country can properly support, whatever that figure may prove to be. The need for this



seems plain when one considers our ratios of population, area and resources in relation to those of other nations.

Among the nations of the world, our population of 16 million people is a relatively small group. It is smaller than the population of Roumania or Egypt, about half the population of Spain. But in area we are the third largest country in the world, exceeded only by Soviet Russia and the Republic of China, and we rank certainly not less than third in magnitude of natural wealth.

In population related to area, excluding the Yukon and Northwest Territories, we have less than 7 persons per square mile. Even if a half of the remaining area is discounted, the figure would be 14. Spain has about 145, Roumania has 180, Egypt has 495, Belgium and the Netherlands have 750. Even Soviet Russia and China, with their vast areas, greatly exceed us in density of population. And none of these examples can be regarded as approaching us in a per capita measurement of resources awaiting development.

If we seek to look into the future, as this commission does, it hardly





seems sensible to suppose that the ratios I have mentioned can remain unchanged, that our relatively small group could continue indefinitely to control and hold within itself the tremendous potentials of livelihood that our area contains.

I am not suggesting maximum population as primarily an economic aim. I do not advocate it merely as a means of attaining, or of hoping to attain, material progress. Nor do I advance an objective of bigness in population merely for the sake of bigness. I do not subscribe to the idea that bigness means greatness, or that attaining bigness in itself means progress, material or otherwise.

What I do subscribe to is that we should strive for the most effective use and stewardship of our resources as a necessity for our continuance as a Canadian nation. This country can support a greatly increased population; because it can, it must. I suggest that to do so constitutes our right pattern, and our justification, for retaining as a Canadian entity the natural wealth that Providence has allotted to us.

Starting with the premise of maximum



supportable population as a national aim and necessity, the question to be considered is the best method by which an increased population could obtain work and livelihood or, to put it another way, the method by which we can obtain maximum development of our resources and thus support a maximum population.

As an approach to this question, it may be useful to consider the manner in which our present population is divided as a work force. I have had a compilation made to show, as of June, 1955, the division into three major categories of persons with jobs in Canada, and comparable figures for the United States. The first group represents resource industries, including the primary processing of the respective materials; for example, under food resource industries are included not only those who grow wheat but also those who are engaged in milling it. Similarly, under industrial raw materials are grouped not only loggers and miners but also those engaged in producing pulp and newsprint and in smelting operations. The next group represents secondary or



advanced manufacturing; while in the third group are included all other occupations which comprise generally the service industries. These include construction, transportation, distribution, and the financial, governmental and sundry service groups. The compilation is shown in the attached table.

Our present dependence on the primary processing of natural resources is clearly evidenced in the figures. Also, as one would expect in a comparison with the United States, a considerably higher percentage of their population is engaged in the advanced manufacturing and service sectors. It is, however, interesting that in terms of advanced manufacturing the difference between Canada and the United States is apparently not as great as is often supposed. You will notice that for Canada the figure of 16.3 per cent of the labour force is estimated as being engaged in advanced manufacturing, as against 18.3 per cent for the United States. In fact, I am told the more detailed figures on which the table is based show that if those engaged in the manufacturing aspects of the first group





were added to the advanced manufacturing group, both Canada and the United States would be shown as employing the same proportion in manufacturing; that is, a little over one quarter of the total labour force.

Looking to the future, it seems reasonably clear that, as a consequence of increasing mechanization, the trend in all sectors will be towards a smaller labour force per unit of output. This will be true not only in the fields of agriculture, fishing, and primary resource development, but will probably apply as well to advanced manufacturing and service industries, now that machines can not only add, subtract, and divide, but can also think, and reputedly do everything but worry.

The important point, however, is that the nature of our primary resources is fairly well defined for the foreseeable future, and it can be expected that primary industries as such will arrive at certain ultimate limits. But this is not at all true of our advanced manufacturing industries and of the service group. The experience in the United States shows that there is considerable scope for expansion of



employment in these two sectors.

The service group by its character is supplementary to the other two, and it can be assumed that the scope for employment opportunities in this sector will be determined to a great extent by requirements resulting from the activities in the other two groups.

It is, therefore, to the field of advanced manufacturing that we must look, not only for an actual expansion of employment opportunities but also for the stimulus that will expand opportunities in the service group. It is in the advanced manufacturing industries where new fields and forms of enterprise are constantly opening up. Here we are only at the beginning of important new processes and commodities, and here, in terms of new products and of people needed to produce them, there are no physical limits to our possibilities. The limits that do apply are not with respect to the range or variety of products but depend upon our access to markets, as I shall mention again in a moment.

From the second standpoint, the obtaining of maximum return from our





resources, it is axiomatic that the further we carry through the stages of processing, from raw material to finished consumer product, the greater is the enhancement of value we derive and the more employment we obtain. This is so self-evident that I shall not labour the point but, as a brief illustration, it may be of interest to compare some of the values obtained at various states of processing the product of the forest.

To the extent that Canadian pulpwood in its raw form is exported, to be processed in another country, we obtain something less than one cent per pound and we provide little employment beyond that of cutting the tress. But the further we process pulpwood, the greater value and employment we obtain. In the form of newsprint, we obtain between six and seven cents a pound. Three further examples, of which I have first-hand knowledge, are high alpha pulp, cellulose acetate and acetate fibre. High alpha pulp is wood pulp processed to a degree that yields almost pure cellulose. Cellulose acetate is a compound of high alpha pulp and



certain chemicals. Acetate is the synthetic fibre obtained by a further processing of cellulose acetate. The following is a value comparison of the cellulose products I have mentioned. It shows approximate current values in cents per pound.

pulpwood. . . . .	under 1¢
newsprint . . . . .	6 to 7
high alpha pulp. . . . .	9 to 11
cellulose acetate . . . . .	30 to 40
acetate, filament yarn. . . .	70 to 120

Acetate yarn at \$1.20 per pound, compared with raw pulpwood at less than one cent per pound, means an enhancement of more than 120 times in value. It also means a multiplication of employment, direct and indirect, that can hardly be measured. And filament yarn itself is not a consumer product but is the raw material for further processing into fabric and then into garments and other end uses.

From these various considerations, it seems clear that the development of advanced manufacturing industries can constitute the greatest single potential of our economic progress during the next 20 to 30 years. I believe this



development offers us the best means of supporting the maximum population needed for our national security and well-being, both in providing livelihood and in obtaining the fullest return from our endowment of basic resources.

The development and diversification of secondary or advanced manufacturing rest on three basic essentials: (1) operating power or energy, (2) raw materials for processing, and (3) access to markets for sale of the commodities produced. There is, of course, a great deal more necessary, such as the work force, the skills and know-how, and the capital investment, but in general these will be forthcoming if the three basic essentials are available. In the first two of these essentials, we are uniquely provided among the nations of the world. It is the third that presents our problem.

Possession of adequate sources of power or energy has been fundamental in the building of industrialized nations. There have been cases of industrial development through importation of raw materials, of which England is probably the outstanding





example, but no country has ever been able to build a highly industrialized economy on a basis of imported power.

The industrial developments of England and of Germany were based on domestic coal, and the dominant factor in our own industrial growth to date has been our abundance of relatively low cost hydroelectric power, in which our use has more than doubled in every recent decade. In addition to hydro power we have oil, petroleum, gas and coal. And added to these we have, perhaps for a nearer future than we can now foresee, our abundant resources of uranium. We are well endowed in sources of thermal energy, as we are in all types of industrial power.

In the second essential of raw materials for processing we are equally fortunate. It seems unnecessary to elaborate this with statistical proof. If any evidence were necessary, a reference to the report prepared a few years ago for the President of the United States by the materials policy commission, generally known as the Paley report, demonstrates the fortunate position we are in, both in



volume and variety of key materials. That report also gives evidence of the continuing eager market there will be for our materials in their primary form.

The third essential, access to markets for manufactured products, is a different matter. What we need, and what we have not got at present, is access to markets to match our sources of energy and our supplies of raw and semi-finished materials.

Any discussion of availability of markets for the product of advanced manufacturing in Canada raises the whole question of continental and international trade relations with other industrialized countries, notably the United States of America. The problems that this question raises are many and varied, and are beside the one point I wish to offer. My one point in this connection is specifically in reference to the operations of the company with which I am associated, although I believe that the principle may well apply to considerable sections of Canadian industry.

My point is that in our company, we are not much concerned about any





particular level of tariff protection for the products we make. What we are concerned about is the competitive level, the level of Canadian tariffs against competitive products entering this country compared with the level of tariffs against the entry of our products into other countries.

In other words, we believe we could operate successfully with a high tariff, with a low tariff, or with no tariff at all, provided -- and this is the crux of the matter -- that we had access on even terms to the domestic markets of our foreign competitors. What we find hard to accept, and a severe handicap to live with, is the relatively easy access to the Canadian market which foreign competitors enjoy, in contrast to the barriers against us in their markets. On even terms of access, high, or low, or wide open, we believe we would be all right.

In the chemical industry there are many secondary products that could be made in volume in Canada, probably at as low a cost as anywhere in the world. They are not now being made because of lack of access



to markets. You will note that I use the words "access to markets" rather than "existence of markets". In many cases, the demand in the Canadian market alone would provide sufficient volume to justify production in Canada. In the cases I am thinking of, however, there is the threat of foreign competition, often at subnormal prices which a producer can apply to only a small part of his output. Under these circumstances, when the Canadian manufacturer has no alternative outlet for his products, production in Canada becomes uneconomic to the point of being impracticable. What is needed is not a guarantee to the Canadian manufacturer that he will not be exposed to foreign competition, but simply an assurance that he can meet his foreign competitors on even terms in the competitors' domestic markets.

As I have indicated, there is little doubt about the continuing eagerness of world markets for our raw materials in their primary form. This condition has been the basis of our economic development to its



present stage, but it is not the course of ultimate development. If we remain chiefly a purveyor of raw materials for other countries to process, we will not attain a balanced and diversified economic development commensurate with our resources and potentials. Certainly it is not a role that would allow support of the maximum population we are capable of supporting. I am not here discussing the pros and cons of the policies that have been followed in Canada thus far. Whatever their advantages or disadvantages, Canada has achieved a degree of development that is the envy of the world. I am discussing the future policies that I believe should be developed and followed if we are to achieve what we should.

From time to time it is suggested that secondary industry could be developed in Canada by denying to others access to our materials. There may be cases where this is the only practical way of controlling a situation, but it is not, in my view, desirable as a general approach. Policies like that work two ways, and it must not be forgotten that many of our industries depend on the purchase





from others of material in a raw or semi-processed state. It should also be remembered that, to ensure efficient utilization of our resources, we need the spur of foreign competition. But if others are to have access to our materials for their secondary industry, and access to our markets for the resultant products, as I believe they should have, it is of the utmost importance that Canadian industry have an equal opportunity.

Undoubtedly the most desirable course is that Canadian secondary industry gain access to other markets and that our competitors continue to have access to our materials and markets. This is the positive course, and will bring the most rapid and efficient development of secondary industry.

If it is not possible to gain access to world markets through reduction of tariff levels and other trade barriers -- and one immediately thinks of the United States market and its discouraging prospect -- then I believe we should take the alternative and, unfortunately, negative approach to equalize the situation by matching the trade controls used by our competitors.



This is a difficult field in which to make broad generalizations, for no single approach could cover all cases. However, I am sure there are many chemicals and chemical products that could and would be produced in Canada, on the basis of Canadian demand alone, under the conditions I suggest, and I feel confident that there are many other industries to which the same general principle would apply.

In support of the arguments I have been making, I would like to cite the case of Canadian Chemical & Cellulose Company, Ltd. Perhaps I should start by describing the nature of our operation. We are engaged in both primary and secondary manufacturing. In the primary field, we produce high alpha pulp in our mill at Prince Rupert. At Edmonton, our operations are an example of secondary manufacturing. We start here with hydrocarbons in the form of liquefied petroleum gases that we purchase from oil refineries, and cellulose in the form of wood pulp that we draw from Prince Rupert. We process the hydrocarbons and the cellulose into a variety of industrial chemicals and other materials, which





in turn are used by other manufacturers. We do not produce consumer or end products; we represent the first stage of secondary manufacture.

This new enterprise has involved the investment of some \$150 million, and at the present time is giving direct employment to some 2,400 people and indirectly to many more. In the Prince Rupert area of British Columbia we are engaged in opening up new territory that has hitherto been inaccessible, as a timber supply for our pulp mill, and at Edmonton we are producing a range of industrial chemicals and chemical products that can be the base for greatly expanded industrial operations, not only by ourselves but by others. In the Arrow Lakes region of British Columbia we are preparing for a new integrated forest industry that will utilize the variety of wood species there available but which have thus far lain relatively undeveloped.

In considering Canada's future economic prospects, it may be interesting to look at the reasons which brought our enterprise into being.

Canadian Chemical & Cellulose



Company, Ltd., is a holding company formed in 1952 to consolidate the Canadian operations of Celanese Corporation of America. In questions about our relationship with Celanese, confusion sometimes arises with regard to Canadian Celanese Limited due to the similarity of names. Canadian Celanese Limited is a separate and independent company in which Celanese Corporation of America has no stock interest whatsoever. Under agreements made a number of years ago, Canadian Celanese owns the trade name "Celanese" in Canada, and has arrangements for an exchange of technical information and patent rights with Celanese Corporation of America. It is important, however, to understand that the Celanese name to which I refer in connection with our company is Celanese Corporation of America.

The first Celanese venture into Canada arose from their need for cellulose in the form of high alpha wood pulp. They turned to Canada because they regarded our northern types of wood as most suitable for their purpose, and also because of their confidence in Canada's future.



Originally Celanese did not intend to go into pulp production on their own, but thought of working with an established pulp producer. As it turned out, mutually satisfactory arrangements could not be made, and Celanese decided to go ahead on their own. Columbia Cellulose Company was formed in October, 1946, and negotiations were commenced with the government of British Columbia whereby timber limits necessary to support a mill could be made available. These negotiations resulted in the granting of forest management licence No. 1 by the government of British Columbia. Construction of the mill started in 1948, and partial mill operations began in mid-1951. Here was the normal development of a new enterprise in primary industry arising from foreign need for our basic materials.

Some years earlier, Celanese had entered the petrochemical field in Texas to meet their large chemical requirements. Based on this experience, Celanese saw that Alberta's oil and gas made Edmonton an ideal location for similar operations to produce acetic acid and other chemicals





needed for making acetate fibre.

From this idea Celanese quickly went to a much broader conception of a fully integrated Canadian enterprise, which would have the same scope as Celanese in the United States, plus supply of wood cellulose. They conceived a genuinely Canadian enterprise, managed and owned by Canadians to such extent as Canadians were ready to venture. They visualized an enterprise that would stand on its own feet, that would both draw strength from Celanese and contribute strength to all Celanese operations.

A ready supply of high alpha pulp from Prince Rupert and of petroleum gases from oil refineries near Edmonton meant that the necessary raw materials were available for this venture. The availability of natural gas meant that the second essential, an economic source of energy, was also available. The third basic requirement that I mentioned earlier, namely markets for the product, was what was missing.

Celanese were not disturbed by the non-existence or the limited size of the apparent market, because experience had taught them that markets



can be created for products that contribute to the comfort and pleasure of living. But something more than an expression of this confidence was necessary to enable the extensive financing required for the Edmonton plant. Because of the Celanese philosophy and of their confidence in the future of Canada, they were prepared to provide the missing ingredient. In short, what they did was to give, in tangible form, assurances that markets would be found for the products of the Edmonton operation. This they could do by reason of their broad international operations.

The terms of the contracts covering these arrangements have been published, as they constituted an assurance of operations on which the bonds and common shares of the Canadian company were offered for public purchase. I can summarize them here by saying that their effort is to enable us to get on our feet through the Celanese partnership, and at the same time leave us sufficiently free to develop markets with customers of our own. In the Canadian operation we are building up our own markets for





our products, but at this stage of our development, we are still dependent on the Celanese undertakings. The important point I want to make is that our entry into the secondary manufacturing field was made possible because of special circumstances which enabled Celanese to provide the missing ingredient, namely access to markets.

I could describe at length the course of events and the policies followed by Celanese in bringing this enterprise into being and in shaping its course thus far. However, I have illustrated the main point that I wanted to make, namely the need for access to markets. There may be other aspects of our development of interest to members of the commission. If so, I would be glad to answer questions or, if you wish, submit further information in written form.

I would now like to summarize briefly the views that I have expressed, and can do so in the following sequence:

1. Canada has resources capable of supporting a population much larger than we have at present. Our



aim should be to obtain our supportable maximum, not primarily as a means to material progress, but as an essential to the most effective use and stewardship of the natural wealth with which the country is endowed.

2. Our most effective means of supporting an increased population, and our most effective means also of obtaining the maximum return from the processing of our resources, is by the development of secondary manufacturing industries. Our economic progress in the next 20 or 30 years depends on this development probably more than upon any other single factor.
3. For satisfactory development of secondary industries, the major problem is to obtain access to adequate markets. The best solution would be trade arrangements that would allow Canadian products access to world markets, particularly the United States market. If that solution is not attainable, we should adopt the less desirable but only alternative course left open to us, namely to



prevent unequal competition by others in the Canadian domestic market by use of the same methods that are used against us and by applying these to specific products and specific situations as required. We do not need favours; we do need equality of opportunity.

THE CHAIRMAN: Thank you, Mr. Mackenzie.

Would you like to tell us what the tariff rates are against some of your products going into the United States, and what the Canadian rates are against similar products coming into Canada?

MR. MACKENZIE: Would you be more interested in the products we make or the products we could make?

THE CHAIRMAN: We will take the ones you could make.

MR. MACKENZIE: There is the whole field of xanthates, which are used extensively in the mining industry. There is a very substantial market in Canada for those. There is free entry into Canada both under the British preferential tariff and the most favoured nation tariff. The approximately equivalent tariff in the United States is  $12\frac{1}{2}$  per cent. That is sufficient; there is no possibility of getting into the market over that tariff. So far that has been sufficient to discourage the manufacturer of those products in Canada, where they





could be very readily made.

Another example is in the whole field of insecticides, pesticides and fungicides for the agricultural community. These come in free under the British preferential tariff and free under the most favoured nation tariff when they come in in bulk, although there is a duty of  $12\frac{1}{2}$  per cent provided they are in three pound parcels, as against a tariff of  $12\frac{1}{2}$  per cent going into the United States.

There are many other very clear examples, I think, of articles we could easily make here.

THE CHAIRMAN: The tariff of  $12\frac{1}{2}$  per cent is enough to shut you out of the United States market?

MR. MACKENZIE: Yes.

MR. GRAUER: If there were no tariff, could you compete?

MR. MACKENZIE: If there were no tariff we believe we could produce many of these articles just as cheaply here as they can be produced anywhere in the United States. We would also have enough volume so we would not be afraid of United States competition, if we could meet them on their own terms.

THE CHAIRMAN: Your profit margin is not sufficient to absorb a  $12\frac{1}{2}$  per cent tariff protection against you?

MR. MACKENZIE: I am trying to remember what tariff we are absorbing on the one



product we make, pentairylthritol, which we sell in quantities in the United States. I have forgotten whether it is  $7\frac{1}{2}$  per cent or 8 per cent, and we are shipping over that tariff.

THE CHAIRMAN: You can get over that?

MR. MACKENZIE: We are getting over it at the present time.

THE CHAIRMAN: You sounded somewhat pessimistic about the prospects of the United States lowering their tariff to the level of ours. Is that a fair conclusion to draw from your remarks?

MR. MACKENZIE: I think that is a fair conclusion.

THE CHAIRMAN: After all, you did use to be the deputy minister of the department that tried to encourage them to do just that. You have already said that you feel the only alternative is to raise our tariff if we want this kind of secondary industry?

MR. MACKENZIE: If we want this kind of development I think there are many cases where that will be necessary, in order to get the development of which we are capable.

MR. GUSHUE: Is this based entirely on the tariff?

MR. MACKENZIE: No; I mean the whole field of trade regulation. Tariff is only a part





of this. There are many ways, as you know, in which the control of trade takes place.

MR. GUSHUE: It is a good deal wider than merely tariffs?

MR. MACKENZIE: Yes.

MR. GRAUER: In that alternative approach to the problem which you think we might be forced into, are there cases where Canada has a higher tariff than the United States?

MR. MACKENZIE: Yes, there are such cases; and there are cases where the Canadian tariff is unnecessarily high.

MR. GRAUER: Under this alternative solution, then, I take it they would have to be balanced in both directions?

MR. MACKENZIE: I am not in the newsprint business, but I have always been puzzled as to why we need a 20 per cent tariff on newsprint. Certainly in the chemical field there are a number of chemical products which we manufacture here where we do not need the full extent of the tariff.

MR. GRAUER: That example seems to be a clear case. I was wondering if there were other cases where a howl would go up from certain Canadian quarters if this alternative solution were introduced?

MR. MACKENZIE: I do not suppose for a minute that you would make any change in the tariff without a howl going up from some



part of the country.

MR. GRAUER: But you think the greater good would be done by equalizing the tariff if necessary?

MR. MACKENZIE: I am sure you would not get a unanimity of view on this, even from all the chemical producers themselves in this country. I know of other chemical companies that hold the same view I have expressed. I am sure there are others who would not subscribe to it. But I do believe there are a number of important producers who will accept this approach; and I have also heard a good many discussions in other industries with which I am not as familiar, indicating that they would be prepared to take their chances with this sort of approach.

THE CHAIRMAN: Back on page 10 of your brief you said:

"In many cases, the demand in the Canadian market alone would provide sufficient volume to justify production in Canada."

Then you go on to say:

"In the cases I am thinking of, however, there is the threat of foreign competition, often at sub-



normal prices -- "

Would you like to amplify what you mean by "often at subnormal prices"?

MR. MACKENZIE: When I wrote that particular paragraph I was thinking of those cases of the insecticides and pesticides and xanthates, where the Canadian demand is quite adequate to justify us setting up to produce them here. However, the experience in dealing with large producers in other countries -- and indeed, we do the same thing where we can -- is that if there is a small surplus in the market you try to find a distant market in which you can dispose of that surplus.

THE CHAIRMAN: You like "dispose" better than "dump"?

MR. GUSHUE: A more refined word.

MR. MACKENZIE: The only problem with dumping is that it suggests an official violation of certain laws, whereas the disposal of a surplus at a subnormal price may not run foul of the existing dumping laws. It is perfectly easy for a United States manufacturer to sell 80 per cent of his product at a given price, for example, and pick up all his customers and then have some tag ends left, and to reduce his price for those tag ends to customers both in the United States and in Canada. Technically he is not dumping because he brings down his price level, but





he only does so after he has sold all his big accounts. That goes on all the time.

THE CHAIRMAN: Apart from the technicalities would you not call that dumping?

MR. MACKENZIE: Yes, I would; but it should not be confused with the technical interpretation of dumping under the Customs Act.

THE CHAIRMAN: I am not as familiar with that as you are.

MR. MACKENZIE: I think, Mr. Chairman, that one of the basic problems we have in this country of 16 million people living alongside ten times our population is this problem of the disposal of surpluses. A very small surplus of anything in that market, disposed of here, has a very disproportionate effect on our market.

MR. STEWART: I would assume that in whichever direction you move -- and you have ruled out the first one as being unlikely; that is, that we can look for adjustments in the United States tariff. But if you adopt that principle, then it has to be generalized so that it will apply to all materials in Canada which could conceivably be exported to the United States.

MR. MACKENZIE: I do not really see why of necessity it would have to have such



a broad application. There are different types of tariff items given to different sections of the Canadian manufacturing industry now, and I do not know that of necessity you have to go right across the board. I would suggest that you could take one or two industries and try out that approach.

MR. STEWART: Has that not been done within the last year or so?

MR. MACKENZIE: It has not been done in the chemical industry, I can tell you. Some chemical tariffs have been raised.

MR. STEWART: That is what I mean.

MR. MACKENZIE: Yes, there have been some that have been raised, but I do not think this has been adopted as an approach considered applicable to an industry as such. There have been isolated cases. The case of ethylene glycol, for instance, comes to mind.

THE CHAIRMAN: Mr. LePan has a question he would like to ask.

MR. LePAN: This is unusual, Mr. Chairman, but if I may I would like to ask a question or two.

I take it, Mr. Mackenzie, that what is suggested here is that a higher level of protection in all the circumstances would make it possible to support a larger population, and that this objective is in the Canadian





national interest.

Would it be also true to say that a lower level of protection might result admittedly in a somewhat smaller population but in a higher level of per capita income and a higher per capita level of real wealth, and so in less disparity between the levels of standards of living in the United States and Canada? So the choice as you would see it would be between a somewhat larger population and the advantages that this would have, on the one hand, but with a somewhat lower standard of living for that larger population than would otherwise be possible, or alternatively more reliance on primary manufacturing that would result in a somewhat smaller population than would otherwise be possible but with a smaller disparity between the standards of living of the United States and Canada?

MR. MACKENZIE: Well, Mr. LePan, I would not like to get into a discussion of what particular level of population or standard of living might be achieved or should be achieved. I am assuming that there are ahead very substantial increases in the Canadian population. If that did not take place, I suppose it is quite possible that the primary resource industries would be capable of supporting a smaller population and providing the same standard of living. Whether that



is a practical possibility or not I just do not know.

I am impressed with the comparison of the division of the working force in Canada and in the United States. In the United States of America, according to these figures, a far smaller percentage of the people are supported in the primary resource industries; 22 per cent in the United States as against 30 per cent in Canada. If the objective is to maintain about the same standard of living, presumably that pattern has some meaning for us; and if it means that the number of people employed in the resource industries is going to become smaller per unit of output, then I think perhaps we are in trouble unless something else is done by way of increasing the advance of manufacturing.

MR. LePAN: You presented the issues, Mr. Mackenzie, with such extremely useful clarity that I would like to ask one other question. It is always hard to see, I think, the principles that ought to be followed in tariff making; and it has occurred to me in reading your submission and in listening to what you have had to say this afternoon that the views you have presented might perhaps be thought to contain a principle of tariff making, and I would like to ask whether you would agree that this is a fair inference to draw from the views you have expressed?



Would it be fair to think that in your opinion the tariff makers should take it as a rule of thumb that they could entertain requests for protection from industries that would have some chance of selling in the United States market if there were no tariff to surmount, but that on the other hand they should continue to be very wary about receiving requests from industries that would not be able to compete in the United States market even if there were no tariff?

MR. MACKENZIE: Yes, I think that would be a fair interpretation of what I have been saying; and I would repeat that I think it has to be selective. I am sure you cannot set one policy, such as I have been trying to enunciate, and have it applicable to everybody. But there are groups of industries, I feel sure, to which that would apply.

MR. LePAN: Would you think, Mr. Mackenzie there would be danger if such a policy were followed in the case of some particular industries, that the pressures might become irresistible on the authorities who have responsibility for framing the tariff, to grant tariff increases to industries that might be uneconomic or inefficient and so on in Canada?

MR. MACKENZIE: I think I would be prepared to take my chance on that.





THE CHAIRMAN: I would like to ask a question or two about your own company. It seems to me that it is set up somewhat differently to some other companies here which are controlled by large United States parent concerns. As I understand it, a percentage of your Canadian company's stock was sold to the public at large?

MR. MACKENZIE: That is right.

THE CHAIRMAN: What percentage was that?

MR. MACKENZIE: Twenty per cent of the common. Let me put it this way. The Celanese Corporation Limited invested an amount, and then 25 per cent of additional capital was sold. In other words, they did not sell part of their holdings but more capital was raised. They had 4 million shares, and they sold 1 million to the public, making a total issue of 5 million shares.

THE CHAIRMAN: The fact is that the public has a 20 per cent interest in your company?

MR. MACKENZIE: Yes.

THE CHAIRMAN: Is that percentage sacrosanct in any way, or might it conceivably be increased at some time in the future?

MR. MACKENZIE: The percentage might very well be increased. We hope it will, and so does the Celanese Corporation. They have stated publicly that they are perfectly



willing to have a much smaller percentage of the equity of an expanded enterprise. In other words their shares are not for sale, but they are quite prepared to have their present investment represent a smaller percentage of an expanded enterprise.

THE CHAIRMAN: And how are your policies settled? How is the company run? I do not mean to be impertinent.

MR. MACKENZIE: You mean is it run well or badly?

THE CHAIRMAN: No. Have you some say in the management?

MR. MACKENZIE: The company's policies are established by a board of board of directors, a separate board of directors, of whom there are nine. There are four representatives on the board representing the investment of the Celanese Corporation. There are four directors representing the Canadian interest, or the rest of the public holdings, and I make the ninth. Obviously the Celanese Corporation has the controlling say, because it owns 80 per cent.

I think the important factor is that the decisions are made in Canada. The directors come to Canada to make the decisions. They sit down with the Canadian directors, who in turn are not just advisers. They have a definite responsibility, in that they represent public shareholdings. I believe we are set up





in such a way that there will be a very good Canadian flavour to the decisions we make.

As to my own position, I have no complaints as to the way it is running.

THE CHAIRMAN: And apart from the setup at the policy level, which you have made very clear, down the line have you managed to find a fair percentage of Canadians in the various management and technical positions throughout the company, or are you in the position where in effect you really have to look for help to the Celanese Corporation, the parent company?

MR. MACKENZIE: I think it is rather interesting that certainly percentagewise a very substantial percentage of all our employees are Canadians. Obviously in this technical operation here in Edmonton a number of the senior officials have come here from the United States. However, the same is true in the pulp mill, as to people coming from the Celanese Corporation. But they come at nobody's dictation except my own, and that is simply a matter of where I can find the people, and I have had to go to the United States.

However, the people who have come here have come to be Canadians. In other words they have come to stay here permanently and take their part in Canada. They are not



here on a tour of duty.

I had the privilege of working for one of these American imports who came up here to work sometime ago and found it very satisfactory; I refer to Mr. C.D. Howe. So I am not averse to getting people from the United States if they come to stay.

MR. GRAUER: Referring to your table at the end of your brief, when I put this to you I am not questioning your analysis with respect to tariffs or with respect to what might be done, particularly vis a vis the United States, but the table is very interesting, and it seems to me you can draw quite comforting conclusions from it.

As you say, we are a small country living beside a great big one in a more advanced stage of development; yet it seems quite striking here that in terms of percentages we have about 31 per cent in the resource industries as compared to  $22\frac{1}{2}$  per cent. In advanced manufacturing 16.3 per cent as compared to 18.3 per cent, which is quite close. Then you get up to your over-all, and the differences there are reasonably small and run along the lines you would expect. Sometimes the difference is in favour of Canada. For instance, in construction the percentage is higher in Canada, and also in transportation. It is less in trade, finance and real estate, and less in services.



MR. MACKENZIE: Yes.

MR. GRAUER: It seems to me that as far as you can draw a conclusion from one table, we seem to be doing all right.

MR. MACKENZIE: I think we are; and it is in large measure, from that table, that we have got as far as we have in advanced manufacturing; and I have the courage to say that I think we would be all right on an even much broader scale than is generally realized.

MR. GRAUER: In other words there is no wholesale change needed, but there are some changes needed?

MR. MACKENZIE: I think there are some needed, whether they come suddenly or gradually. It may be that they cannot come over night, but I think that is the direction toward which we should be working. I gained confidence from this percentage of the working force in advanced manufacturing as an indication of the degree to which we have grown up.

THE CHAIRMAN: Well, thank you very much, Mr. Mackenzie. We are very grateful to you and we can appreciate the trouble and the thought you have put into this submission. Now we will adjourn until tomorrow morning at 10:00 o'clock.

---At 5:25 p.m. the  
commission adjourned.















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